# "Cerebral Cases"
## with Remarks.

Alexander Rankin. M.B. C.M. (1877).
12 Abbotsford Place.
Glasgow. S.S.



ProQuest LLC.
789 East Eisenhower Parkway
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The following cases (with one exception) all came under my care in the ordinary course of general practice.

They may be divided into 4 Groups.

(1) Cases 1 - 15 Tuberculous Meningitis.
(2) " 16. 17. 18. Meningitis (Basal).
(3) Case 19 Hydrocephaloid Disease.
(4) " 20 Simple Acute Meningitis.

In 3 of the cases Post-Mortems were made & the results recorded.
The difficulty of obtaining post-Mortems in Private Practice accounts for the fewness of their number among my cases.

Some of my reports may be rather incomplete because it is sometimes impossible for obvious reasons to visit a case in Private Practice as often as one would wish. This fact along with the small proportion of post-mortems no doubt to certain extent detracts from value of my reports, but under the circumstances this was unavoidable

Three of the cases are noted as "Recoveries" from Tubercular Meningitis. In one of these cases the child died some time afterwards from Convulsions. In another patient a recovery was Deaf & Dumb. In the third case the girl is still living but in very delicate health.

3 recoveries out of the number of cases of Tubercular Meningitis Reported in this Paper is no doubt large proportion, but I may state that these 3 cases represent all the recoveries I have met with in my experience of this disease.

During time I have been in Practice (over 7 years) I have calculated that I have seen at least about 40 cases of Tubercular Meningitis most of them being in Children.

In all the cases here recorded I was personally well-acquainted with Family History.

In the 3 cases included in Group 2. there was clear Syphilitic history.

Group 1

Case. I Tubercular Meningitis in an adult. Death in 15 days. - Post Mortem page. 7.

" II Tubercular Meningitis in an adult Death in 12 days. Post-Mortem page. 55.

" III Tubercular Meningitis in a Boy. following suppuration in Hip Joint. Death in 5 days from onset of the Head Symptoms. Post Mortem page. 105.

" IV Injury to Head - followed by Cerebral Symptoms - Death. page. 127.

" V. Injury to Elbow Joint followed by cerebral disease after a month - Death. page. 135.

Case VI. Injury to Elbow Joint.
followed by Cerebral Disease
Death –
page. 141.

(4 following Cases all in one Family)
Case VII. Tubercular Meningitis –
in a child – Duration 18
days. Death.
page. 149

Case VIII. Tubercular Meningitis
in child of 10 months.
Death in 3 weeks.
page. 173.

Case IX Tubercular Meningitis
following second attack
of Measles in a child
Death in 22 days.
page. 189

Case X. Tubercular Meningitis
in Child 3½ months. Death.
page 199.

Case XI — Tubercular Meningitis, girl 6 years — well-marked remission of Symptoms — Death.
page. 215.

Case XII. — Tubercular Meningitis — following Measles & Bronchitis in a child. Death —
page. 237.

Case XIII — Tubercular Meningitis in child. 18 months. Duration about 3 weeks. Recovery. Death 18 months afterwards from Convulsions.
page. 271.

Case XIV. — Tubercular Meningitis in a Boy — Incomplete recovery. — Deaf & Dumb.
page. 309.

Case XV. — Tubercular Meningitis in girl 7 years. 3 weeks duration — "Hydrocephalic Cri" Coma — Recovery —
page. 349

"Hydrocephaloid Cry" "Cri Hydrocéphalique" Fr. — "Hydrocephalic Cry" Eng. — "Grido Idrocefalico" It. — "Hydrocephalic Cry" Eng. — "Cri Hydrocéphalique" Fr. — "Grido Idrocefalico" It.

Group. 2.

Case XVI. Meningitis - symptoms resembling Tubercular form. - in Boy. 3½ years.
Recovery.
Page. 419.

Case XVII. Meningitis in child 21 months resembling Tubercular form.
Recovery.
Page. 441.

Case XVIII Meningitis following Pertussis. in Child 15 months.
Convulsions - Coma - Death.
Page. 463

Group 3

Case XIX. Hydrocephaloid disease - in Child 10 months.
Paralysis - Coma - Death in 15 days.
Page. 487

Group 4

Case XX. Simple Acute Meningitis in Infant.
Death in 48 hours.
Page. 509

"Tubercular Meningitis in an Adult
Terminating in Death in 15 days.
Post-Mortem Examination"

Joe Martin, Aet 24 years. (Leadgate Co. Durham)
Van-Man with Grain-Millar, at his work he had to
load his Van with bags of grain from Trucks at
Railway Station, drive some distance thro the Village
then carry them up 2 or 3 Stairs in the Mill &
empty them, in this way he would load & unload
200 or more bags of grain every day, the had
been at this occupation for some years.

Family History.

Father died when 60 years of age from Paralytic Stroke.
Mother died at 45 from Chronic Bronchitis.
3 Brothers living in good health.
1 Sister died in Infancy from Convulsions following Measles.

15th Nov.

Saw patient for first time this afternoon when he told me
his present illness began very gradually. has been feeling
ill & out of sorts for a week or ten days, & during this
period he complained principally of cough which was very

troublesome hard & barking, pain in head, & complete distaste for food, frequent attacks of sickness & vomiting, he blamed the coughing for the pain in head, which he says "is very frequent & sore on him", it usually ended in vomiting & then he gets relief. Pain of head is so severe as to keep him from sleeping during the night.

Patient is a stout muscular young man, 5 ft. 7 in. in height, with large round head, full-faced, red cheeks. he has several distinct scrofulous cicatrices on the neck, but so far as external appearances go he looks a strong, robust subject.

Up till present illness he had always enjoyed good health, had never been off work for even a single day from illness of any kind. Has not been wasting in flesh to any appreciable extent, but during the last 2 winters he had suffered from troublesome cough, it had not confined him to the house any nor has he ever sought Medical advice about it, as he considered it was due to his occupation & not to any Lung disease. He has quite confident cough was due to the sweatings & colds he was exposed to at his work, & he also thought that the dust he inhaled in the Mill when emptying the sacks of grain had something to do with it.

He had been to his work this morning but the pain in head became so severe that he had to give it up & come home. On going into his room I found him sitting up in bed with basin before him retching violently & trying to vomit, there was nothing came up with the retching which was very persistent & distressing. Veins of head & neck were swollen, & face was flushed with the exertion.

He complains very much of pain of head which he says is excruciating, & insists "that he cant live if he does not get something to relieve it"

There is no disturbance of mental faculties, as he conversed with me in perfectly intelligent manner. Told me how long he had been ailing, how his illness came on, & said that vomiting had only got so bad within the last 2 days, at first he thought it was due to the cough to which he also attributes pain of the head, & during last 2 days has not been able to retain any food on the stomach on account of this persistent vomiting. Face, has puffy rather bloated, & anxious appearance. Eyeballs bloodshot, & considerable heat of head, more especially in occipital region, refers pain mainly to Forhead & Vertex.

Tongue moist, & covered with greyish fur, protruded slowly & tremulously in mid line.
Bowels not moved for 3 days.
Cough has been accompanied with muco-purulent expectoration, but never spat blood.
Examination of chest reveals evidence of Phthisis.
under left clavicle there is abundant mucous crepitation, with increased Vocal resonance, & marked dulness on percussion, & over remaining surface of chest anteriorly there are abundant bronchitic rales, & just under ~~right~~ clavicle on right side there is slight "click" to be detected at end of inspiration. Posteriorly bronchitic rales are heard on both sides; with coarse crepitation, increased Vocal resonance, & dulness at left apex.
Cardiac sounds normal.
Pulse 140. irregular
Temperature 102°·4.
I considered I had to deal with case of Meningitis. & from state of lungs was inclined to think that lesion was of Tubercular nature
Ordered ice-bag to be kept on head, room to be kept dark, & enjoined perfect quietness
Large linseed Meal & mustard poultice to be applied

over Chest & abdomen & renewed every hour.
Milk & Soda Water to be given in small quantities frequently as sole diet. With the view of trying to relieve pain of head following Mixture was prescribed Rx Potassii Brom 3ij.
" Sodidi 3ij
Tinct Hyoscyam 3ij
Glycerinii 3iv
Aq ad 3iij M.
Sig. 3ij every 3 hours. till I saw him again in the evening.
Soap & Water injection for the bowels.

Visit 10. pm

In much same condition as in forenoon with the exception that vomiting is not just so frequent, Pain in head not any better, does not cry out with it so much, but lies with head bored into pillow & moaning very much as if in pain
Bowels have been moved with the injection
Pulse 120. irregular
Temperature 102°.6.
Ice bag still to be kept on head
Milk Soda Water. & medicine to be continued.

Powder containing 5 grs Calomel & 25 grs Salap ordered.

16th Nov.

At my visit this morning he is lying on back, in a drowsy condition, with eyes closed, & mouth half open. I thought I noticed a little dragging of corner of mouth to one side, but this disappeared when I roused him & got him to speak. When spoken to loudly he answers questions at once & correctly.

The Medicine had been given regularly during the night, but still complains of pain of the head, which he presses with his hands to try & relieve. Vomiting has ceased entirely since midnight, no further motion of bowels since injection. Eyes are blood-shot & dull, & has the dazed stupid, expression of a person just roused out of a drunken sleep; great intolerance of light.
Pulse 90 irregular full & soft.
Temperature 102°.

On the whole I did not consider patient any better this morning - the persistent headache - the drowsiness & character of pulse impressed me as of very grave import
Potassii Brom: Mixture to be continued as before

Fly Blister to be applied behind right ear.
As he was anxious for food, bread & milk, & beef-tea were allowed.

9.30 pm.

Still in drowsy condition, lies on back rolling head on pillow & moaning almost continually.
Complains still of pain of head but only if asked about it. Answers questions slowly, but correctly.
He complained of irritation of blister which by 9 o'c had risen very well, & contained large quantity of serum which was let out, but no relief of pain as yet.
Pulse 90 intermittent.
Temperature 102°.
Vomiting has returned since afternoon, & was continued ever since this was thought to have been caused by the Beef-tea which was allowed, so it has been discontinued. She is only to have iced-milk.

19th

Consultation this forenoon with my principal (Dr. George Renton - Consett Co Durham.)
General condition much the same as yesterday, rolling of head & low muttering still continues.

now & again he lies quiet for a short time, & again he will wake up startled & frightened like complains of pain in head & begin moaning again.
Vomiting still continues.
When spoken sharply to he answers questions correctly, & says that pain in head is worse than ever.
Pulse 90. intermittent
Temperature 102°.
Dr. Renton concurs with me as to diagnosis of "Tubercular Meningitis" & expresses very gloomy prognosis, discussed treatment principally, with view of relieving pain of head. For this purpose Dr R suggested Potassii Bromide & Chloral Hydrate (I had refrained from giving the Chloral on account of patients drowsy condition) yielding to the entreaties of patient to give him something for the excruciating pain of head. to-night
Ice-bag still to be applied, & nothing in way of food but milk & Soda water –
To have Draught containing Potassii Brom 3ss: Chlor. Hydrate grs 20 Tinct Hyoscyam 3ss in Syp: Simp. & water every 4 or 5 hours.
Evening Visit 10 p m.
Has been delirious at intervals during the day, &

rolling & tossing about in the bed, occassionally he would jump up suddenly between the times of delirium, & press head with hands & cry out with pain of it. & at times it was with great difficulty he could be kept in bed. His cries of "Oh my head"! are very pitious. Vomiting everything food & medicine, so that the sedative draught has not had chance of taking any effect.

Face haggard & worn, eyes injected & with peculiar fixed frightened stare about them, pupils equal & sensible to light, Abdominal wall flattened, "Jacks Cerebral" easily produced on Chest & abdomen.

Pulse 70. Still intermittent

Temperature 102°.4

Up till this time has not had any sleep for any length of time. if he does appear to sleep he just dozes for a few minutes at a time, & wakens up frightened. so I determined to give him draught containing 30 gn Chlor. Hydrate with 3ij Mist. Hyoscyam. in the hope that it might be retained by stomach & induce sleep.

I may here state that the branch Surgery. in which I lived at this time was just next door to Patients

house, in fact he lodged with my Housekeeper, my bedroom being just thro the wall (lath & plaster) from the room in which he was lying, so that when I was in bed I could hear any one talking in his room if they spoke at all loud.

This evening when I went to bed I could hear the shrill piercing cries of my patient in next room, & before I fell asleep I had come to the conclusion in my mind that this was the characteristic "Cri Hydrencephalique" of Tubercular Meningitis, altho this was the first time I had ever heard it

The peculiar character of the "cri" has impressed very forcibly on my mind & it is very unlikely that I shall ever forget it or mistake it for any other thing than a pathognomonic Sign of Tubercular Meningitis

It was however some time before I did go to sleep, but I had not slept long before I was awakened with the cries of my patient, they appeared to me now to be louder & more agonising in character, but it is just possible that the midnight hour, the surroundings, & the

peculiar circumstances of case altogether, may account for this impression of mine.

I lay & listened to his cries for some time, & as I calculated the "cri" occurred regularly every 5 or 6 minutes, the interval being filled up with period of delirium & restlessness lasting for 2 or 3 minutes, followed by period of quiet, & then the "cri" again.

I had lain for some time listening to the cries of patient, & as I found it quite impossible to sleep, I dressed & went into his room to see him, He was lying on back propped up with pillows, & picking at bedclothes in a dazed sort of manner, & if spoken to or roused he stared vacantly at some imaginary object at far end of the room.

At other times he tried to jump up in bed, & was only kept down by vigorous exertions of his 2 Nurses, who informed me that he had made frequent attempts to get out of bed.

Pain in head evidently still severe, as he sometimes puts up his hands to head & presses it, & the low moaning present suggests idea of suffering.

I sat & watched him for some time, & what I saw & heard was just a repetition of what I

have described, the Hydrocephalic Cry impressed me very much & gave me the impression that it was caused by pain, it was loud & shrill & seemed to me the cry of a person in extreme agony. Altho' he was drowsy & stupid still he was not quite unconscious as he could be roused & got to answer questions to certain extent. His cry of "Oh my head"! also pointed to seat of suffering & degree of sensibility.

As I saw I could do nothing further for patient I returned to my room, & determined to have another consultation with Dr Renton in the forenoon; I was now quite confirmed in my opinion that this was case of pronounced Tubercular Meningitis, & as we could do nothing to arrest the disease, I was anxious to try & do something to relieve poor Fellon's sufferings.

18th

Consultation with Dr Renton, who examined him as carefully as his restless & excited state would allow of. Has been very restless all night, jumping up & trying to get out of bed & clutching at imaginary objects in the air.

On being spoken to sharply he understood what was said to him, for he put out his tongue &

opened his eyes when asked to do so. but when left alone for a minute or two he lapsed into the low muttering delirious condition again.
Head very hot, eyes staring & blood-shot, pupils are dilated equally.
Pulse 90. intermittent, & easily compressed.
Tongue dry, & covered with brown fur.
Has only vomited once Today, bowels not moved since injection, able to retain urine task for the chamber utensil.
Grey hound belly well-marked.
Ache cerebrale easily produced & lasting.
Dr Reuton & I discussed the treatment in the direction of relieving the insomnia & delirium, & came to determination to try Hyoscyamine.
As Vomiting had almost ceased now he was to be regularly fed with Milk, bread & milk & Beef-tea in small quantities frequently.
As there was considerable heat of head, ice-bag to be kept applied on head as far as possible
To have 1/2 gr. dose of Hyoscyamine.

Evening Visit.

Has slept some during the day, tho' at times

there was some moaning with slow sterterous breathing.
Altogether has rested better today than he has done since he took to bed, this quietness was probably due to Hyocyamine he had in forenoon.
Pulse 66, intermittent.
Temperature 100°
Has to be wakened up to get his food, of which he has taken considerable quantity since forenoon.
Has passed urine, but no motion of bowels.
The cough which was very troublesome during first few days he took to bed has abated considerably. Lungs have become very much congested at bases posteriorly on both sides. & breathing is very short at times evidently depending a good deal on position he assumes, as at other times it appear quite free & very slow.

19th During last night in my own room I heard him moaning a good deal, but was not disturbed with the piercing cry: it has left entirely.
Nurse informed me that altho he had been moaning a good deal during the night he had rested fairly well compared with previous night.
At my visit he kept constantly rubbing head

with hands & rolling it wearily on pillow this was done quite mechanically as drowsiness is much deeper today. once or twice he opened his eyes wide & stared straight before him for a little as if he was watching something.
Bowels have been moved in bed.
Convergent squint of right eye
on tickling soles of feet power of motion is distinctly lessened on right side

The drowsy condition he is now in is probably due to advance of disease as well as to the medicine, is much sunk in face, & evidently much worse on the whole.
Pulse 60. intermittent.
Temperature 100°.2.
I left instructions for him to be regularly fed, & to have another dose of the Hyoscyamine should he again become restless not otherwise; has only had one dose of Hyoscyamine as yet.

During the next 5 or 6 days there is no new symptom to note, & little change in patients general condition, he appears gradually sinking altho he takes food

well, in fact he takes everything that he gets there being no interference with deglutition. He had to get occassional doses of the Hyoscyamine as the delirium returned at times, & he sometimes made feble effort to get out of bed.

During last 2 or 3 days face has undergone a considerable change, it is very emaciated, & has very pinched anxious appearance, & the usual red colour of his cheeks has given place to a dark purplish hue

24th.

Hyoscyamine had been omitted last night, & he has been very restless again, could scarcely be kept in one place in bed for more than 2 or 3 minutes at a time, rolling & tossing about from one part to another constantly — Evidently this was the last flicker of Muscular System before the final stage of coma came on for he gradually sunk into comatose state today from which he never rallied

Vomiting entirely ceased, & takes nourishment freedily.

Passing water in bed.

Pulse 130. Small & irregular.
Pupils unequal, right double size of left.
Temperature 100°.2.

Evening 10. P.M.

lying on side with head retracted, & occiput pressed back into pillow. Mouth & Eyes are half open, intense congestion of whites of the eyes which are freely exposed.
Right hand in constant motion wandering over the bed cover, left arm lies motionless by his side.
in state of profound coma, pressure on brain is evidently increasing, & the slow irregular breathing of cerebral disease is very characteristic.
Pulse 150, thready & easily compressed.
Temperature 100°.
Passing urine & motions in bed
very feeble efforts are made to swallow when milk is put into his mouth

For the next 5½ days he remained in this comatose condition never once returning to consciousness the deepening of coma & cheyne-stokes respiration becoming more marked

Pulse became very rapid & thready, & during last 2 days of life it became so quick that it was quite impossible to count it.

The day before death the purple hue left his cheeks & they returned to their original red colour

30th

Evidently dying, slight convulsive twitching movements of face set in last night, this was followed by the convulsions becoming more general & by 9. a.m there was violent spasmodic movement of whole of left side of the body including muscles of the face, the contortion of facial muscles, with corner of the mouth drawn to one side. & constant movements of both upper eyelids gave patients face a very ghastly expression.

Convulsive movements continued up till Death at 1. P.M. today.

This was the 15th day from patient leaving off his work & taking to bed, but on carefully questioning the Housekeeper I found that he had been complaining of the headache & sickness for about 8 or 10 days before he took to bed

Joe McCartin

| | | Pulse | | Temperature | |
|---|---|---|---|---|---|
| | | Morning | Evening | Morning | Evening. |
| 8th day | 15th " Nov. | 140. irregular | 120. | 102°.4 | 102°.6. |
| of illness | 16th " " | 90 " | 70. intermittent | 102°. | 102°. |
| | 17th " " | 70 intermittent | 70 " | 102°. | 102°.4. |
| | 18th " " | 70 " | 66 " | | 100°. |
| | 19th " " | 60 " | | 100°.2 | |
| | 24th " | 130, small | 150. feeble | 100°.2 | 100°. |
| | 30th " " | Died | | | |

& as for the cough it had been going on for a long time -

Post-Mortem Examination. 24 hours after death.
Dr George Rentan & I obtained permission to examine head only. Skull cap removed & brain examined "in situ".
Dura Mater over convexity much congested.
Arachnoid opaque & very sticky. & studded thickly over its surface with little greyish granules, varying in size from pin head to split-pea, these granules were most numerous in middle line alongside the longitudinal fissure
Sac of Arachnoid contained quantity of lymph like fluid with minute greyish particles floating in it.
On removing brain the greyish tubercles were found more numerous on the base in region of the Optic commissure & Sylvian fissure
Central cerebral substance very much softened, & the ventricles contained large quantity of clear serous fluid.
Pia Mater much injected & was removed from the cerebral substance with difficulty.
On the whole evidence of inflammatory action

in Brain & its Membranes very extensive.

Had we been allowed to examine chest I have no doubt evidence of Tubercular disease would have been found in the Lungs, both the history & physical signs pointing in that direction.

Remarks.

The occurrence of Tubercular Meningitis in the adult is sufficiently rare to call for remark. Altho this disease may be met with at almost any age, still it is much more frequent in Infancy & Childhood.

This was a very typical case presenting almost all the recognised classical symptoms of the disease in a very pronounced form enabling diagnosis to be made at early stage with considerable degree of certainty.

The case was very valuable & interesting to myself as it came under my care almost at the outset of my professional career, & served to fix the broad clinical features of the disease in my mind in very impressive manner

There was no family history of Phthisis, but the characteristic

Dr. Sagge. Practice of Medicine Vol I page 76. Origin of Tubercle
states "that he believes that the affections of the
Lungs which are due to the inhalation of dust,
are really tubercular, & (not as is generally taught)
of a different nature.

cicatrices on neck pointed to distinct Scrofulous tendency.
His Mother died at age of 45 years from Chronic Bronchitis.
but none of his relatives so far as he knew had suffered
from Phthisis pulmonalis.
His occupation undoubtedly would assist in developing the
diseases from which he succumbed: At his work he was
exposed in all weathers, & as it was very heavy he used
to sweat a great deal, & often had his clothes wet when
he had no opportunity of changing them, owing to this he
frequently suffered from Coughs & colds, which were
just allowed to run their course, this along with
the dust he inhaled in the mill would no doubt
aggravate & assist in inducing the Phthisis from which
he suffered.

Very important factors in exciting the Cerebral lesion
would be the severe cough from which he suffered for
2 or 3 years, & the determination of blood to the Brain
caused by his carrying heavy loads on his back with
the head bent forwards; these 2 causes acting over
a lengthened period must be considered as having Something
to do with Causation of the Cerebral disease.
The latent Scrofulous tendency in patient would
no doubt act as predisposing factor.

* This case bears out the opinion expressed by Dr. Ledeser as to Tubercular Meningitis occurring in patients who are well nourished & of a healthy appearance, as there was no appearance of ill health about Martin or any appreciable wasting before he took to bed, such as we would expect to find in patient suffering of Tubercular disease. This is quite unusual so far as my observation of Tubercular disease has gone till present time with children.

Reference is made in the Edinburgh Medical Journal, for July 1883, p. 73 to a paper by Dr. Ledeser, of Vienna on Cases of Tuberculat Meningitis, in which he states that most of his cases presented no previous traces of Scrofula but were on the contrary well nourished & of healthy appearance, This does not correspond with my experience of a large number of cases of Tubercular Meningitis, scrofulous manifestations either in the Parents or the children being of frequent occurrence in the cases I have met with, neither were my patients well-nourished nor of a healthy appearance. this case being only one I have met with where there was no premonitory wasting.*

With regard to the diagnosis there was little difficulty almost from onset of illness, he had been ailing for about 8 days before he left off work, & at my first visit symptoms pointed directly to Brain. & the examinations of Chest suggested the Tubercular nature of the disease.

The excruciating headache & the vomiting, which nothing seemed to give any relief to were very prominent symptoms.

Headache was most distressing & continued up till time coma set in

Headache persistent & severe is a most important & characteristic symptom in Tubercular Meningitis & almost invariably present. still we may have cases of this disease in which Headache is entirely absent. Dr. Murchison in the Lancet for June 1872. p. 826 reports case of Tubercular Meningitis in an adult age 29 years. in which there was no complaint of Headache during whole course of case. other symptoms of the disease were distinctive & P. M showed tubercular Nodules in abundance at base of Brain.

Division of the disease into stages usually recognised was tolerably well-marked in this case. the pulse corresponding with these arbitrary divisions very well at early stage during restlessness & irritability the pulse was quick 140. & irregular
then became slow & intermittent during stupor of 2nd stage. & towards termination of case during period of coma pulse became very rapid & thready. "Hydrocephalic Cri" was present & very characteristic
Delirium was a very striking feature of the case sometimes low & muttering at other quite outrageous. struggling violently during height of delirium.

As compared with same disease in the child, the headache in this case was more severe, & the delirium greater & more prolonged.

Temperature ranged from 100°. to 102°. 6.
never was lower than 100°.

Prognosis hopeless from the first.

In regard to treatment this case showed the utter uselessness of remedies which is usual result in the majority of cases of Tuberculer Meningitis.
Nothing appeared to have any effect in checking the disease, or in any way relieving the distressing symptoms.

Hyoscyamine in 1/2 gr. dose was thought to quiet the delirium & cause sleep, but this may also have been due to advance of the disease, at any rate it must be said he was quieter the nights it was administered, & restlessness returned when it was omitted.

(Rarity of T. M in adult will be referred to in remarks following case 2).

Case II

"Tubercular Meningitis in an Adult.
Death in 12 days.
Post Mortem Examination".

"Henry Johnstone. Leadgate. Co. Durham.
aet 23 years. Schoolmaster.
Has been in failing health for some months past, with nothing very definite or urgent about his symptoms nor has he sought Medical aid. He describes himself as being out of sorts & lazy, & can't be bothered about his work, nor does he take the same interest in it that he used to do, he is easily annoyed & fretted compared with his former disposition.

Has been a good deal harassed with his work in the School for some time back, & this has preyed on his mind & made him so restless & uneasy in the evenings that he could scarcely sit in the house, & when he went to bed he slept badly, & some nights he was in such an irritable state of mind that it was quite impossible for him to sleep at all.

As I was in the habit of seeing patient & coming in

contact with him frequently I was very much struck with the change in his mental dispositions, he was formerly of a jovial free & easy manner but lately he has completely changed & become quite the reverse, & he is now very gloomy & dejected, this change in his mental disposition was so striking that it was subject of frequent remark amongst his friends.

If in the house he would sit with eyes fixed on the fire in listless manner, would scarcely answer if spoken to, or if he did so, it was only to say Yes! or No! & then lapse into his dreamy condition again; or if he did engage in any conversation it was only to talk of his health, or what he should do for it, or perhaps grumble about his work.

Recently he has become fond of taking solitary walks, & if he possibly can he avoids all society, this being in marked contrast with his former lively & sociable style

Has always been regular & temperate in his habits, Within the last few months he has lost flesh considerably, This principal complaint at present is sleeplessness & costive bowels, the latter being

due I think to the Medicines he has been Taking, for he has been prescribing for himself a good deal, ringing the changes on different drugs, principally tonics Syp. Cactonii, Steel, Strychnia, Phosphorus &c quite recently has been taking Pil. Coloc. Co. for the costiveness.

Two years ago he had a chancre & was under treatment for Syphilis. & at the present time he has a small ulcer on side of Tongue near the tip. which has proved very intractable, & has resisted a good deal of treatment; it does not appear to be due to friction or irritation of teeth.

Has complexion is now very sallow, eyes are much sunk, & eyelids puffy with dark line underneath the eyes. & altogether he has appearance of very decided ill-health.

Family History

Father died of Phthisis Pulmonalis, age 45 years.

Mother still living suffering from Chronic Bronchitis

1 Brother & 1 Sister living & in good health.

2 Sisters died in Infancy from Chest complaints.

During the week immediately preceeding present illness, I met him several times & he complained very much of increasing weakness, & said that he was going from his food altogether & that he had been vomiting several times, & spoke about taking a holiday as he felt quite done up.

On Sunday 18th Dec. I received a hurried message to visit him for first time, on going into his room I found him at fireside vomiting, he was sitting on a low stool holding his head with hands & resting his elbows on knees.

The Vomiting & retching were most distressing & had been constant all day, & was accompanied by most intense headache located in Frontal region principally.

Head very hot, Eyes bright & injected, face flushed,

Bowels not moved for 3 days.

Pulse 130 full & irregular.

Temperature 100°.

Tongue moist & covered with thick yellow fur.

No Cough- Examination of Chest does not reveal any signs of Lung mischief.

He was under the impression that he was suffering

from Bilious attack, & had been taking pills for it but they were vomited almost as soon as taken.

He was put to bed & large Linseed Meal & Mustard poultice applied over Stomach & Bowels. Ice water compresses to be applied to head frequently & Mixture containing Potassii Brom. & Potassae. Bicarb. in effervescence with Citric acid to be taken every 2 hours.

Powder containing Calomel gr. 5 & Pulv. Jalap. gr. 30 to be given at once & repeated in short time if vomited.

Diet to be restricted to Milk & Soda water.

At this visit I stayed with him about an hour, & during the time vomiting was incessant, there was also considerable thirst & great craving for cold water which was rejected almost as soon as he had swallowed it, & with little effort.

At this time it did not occur to me that this was case of Cerebral disease; from the feverish condition & the furred tongue I was inclined to think that the illness was due to some Gastro-Hepatic

disturbance, or probably the onset of some Febrile disorder.

19th Monday.

No better, vomiting has continued more or less all night. has not slept any,
bowels have been moved.
complains of pain of head as being most excruciating begs of me for something to relieve it.
She severe & persistent headache, with the vomiting & purposeless retching which were still very distressing during my visit, & the character of the Pulse 120. soft & irregular; now suggested the idea of Cerebral disease to my mind very forcibly.
Temperature 101°
Tho' very ill & weak he will not go to bed, but sits at fire or walks about the room.

I now wished to put Hy Blistr on his head, but he would not consent to this as he said he had a Public Dinner to attend in 2 or 3 days & he was afraid it would prevent him going.
He was still under the impression that he was suffering from an attack of Bile, & was

very stubborn about carrying out my line of treatment, I however informed him that I considered his illness a very serious one, & gave his Housekeeper special instructions, & told her of my suspicions I have cerebral disease.

Prescribed following mixture. & Powders.

℞ Potassii Brom 3vj.
" Iodidi 3ij
Mict- Hyoscyam 3j
Aq ad 3vj. M.

Sig- ℥ss every 2 hours in water.

℞ Pulv. Hydrarg e Cretae gr. xxiv
" Rhei gr. 12 M.
Ft Pulv. et div in pulv. x ij.

Sig. One night & morning.

Evening Visit 9. P.M.

has been walking up & down his room all day holding head with hands, has vomited almost all the food he has taken during the day, the only things that are retained on stomach are iced- milk & Champagne.

Pulse 120. intermittent.

Temperature 102°.

Tongue still covered with yellow fur, Moist & tremulous
abdomen flattened.

21st Wednesday.

Since last note there has been little change in patients condition. Has not slept any during last 2 nights & is very much exhausted, with worn anxious expression of face, & with peculiar bright staring look in his eyes

Pulse 80 intermittent

Temperature 99°.8.

Vomiting almost ceased, & he is able to take a little food, & medicine is retained by Stomach.

Can not be prevailed on to keep in bed, but he persists in getting up & moving about thro' the house, still complains of pain of head.

Mrs Housekeeper (whose bedroom is situated just underneath patients on ground flat) told me that she was kept from sleeping during the night by patient walking up & down his room & crying out with pain of his head.

Ophthalmoscopic examination of Eyes.

Pupils widely dilated. Fundus in both

eyes injected & very red, this most marked in right eye.
slight degree of edema of both optic disks.

22nd Thursday Morning.

Has been delirious during last night, delirium being of a noisy character, talked about his work, & wanted to dress & go to his School. this passed off towards morning when he became quieter & was inclined to sleep a little, & during the short snatches of sleep he wakened up screaming & crying out with pain of the head.

From House Reports descriptions of the screams I am inclined to consider them the characteristic Cries of Hydrocephalus; however as at no time during the course of the case did I hear the "Hydrocephalic Cri" myself I am not prepared to speak positively as to its presence.

Pulse 90 still intermittent
Temperature 100°.
Bowels have been moved.

During course of this day he has had more rest & freedom from pain than on any day since he has been confined to the house, but will

not be prevailed on to keep altogether in bed. As there was no improvement in patients' general condition I consider that it is influence of the medicine that has to do with the quietness today. He is still taking the Bromide & Iodide of Potassium mixture.

23rd Friday Afternoon-

Has been dressed & going about the house all day. Head still painful, but states that he feels much better, & that only for the weakness he thinks he would be all right.

Cheeks are a little flushed, & he certainly does look a little better, but his emaciated & listless appearance reminds me of a person just getting out of bed for the first time after a long & severe illness.

Pulse 76. Soft: & intermittent.

Temperature 100°.4.

Tongue moist, & coated with white fur. Bowels have been moved. Grey-hound belly very marked.

Pupils dilated & equal, & he mentions today that he can't read & he blames the Opthalmoscopic examination for this: he had been trying to read news-papper, & could not manage it as the letters ran into one another &

became blurred & indistinct, he could not tell the "time of day" on my watch
Hearing is Normal.

(Would not allow another examination proper with the Opthalmoscope)

He is preparing to go on a visit to Durham tomorrow (distance 14 miles). after I had examined him I advised him not to attempt the journey as I did not consider him in a fit state to be out of his bed

24th Saturday Morning.

Patient called in at my Surgery this morning on his way to Station to get train for Durham. Said he was going to attend the "Annual Dinner of the Students of Durham Training College".

He looked perfectly haggard, so emaciated & his clothes hung quite loosely about him, & in such a feeble condition altogether that I advised him not to go, but he would not be persuaded: so I gave a Young Lady Friend who was going to accompany him some

instructions, & I heard from her afterwards that he had been what she called "Heady" in the train rambling in speech & talking excitedly & incoherently principally about his school work.

He was present at the Dinner but during the time of it some of his friends noticed that his actions & talk were rather strange, & in the middle of it he jumped up & commenced to walk about the room, throwing his arms about & shouting at the pitch of his voice, so excited was he that those present knowing nothing of his previous illness considered he was under the influence of drink, (he had small quantity of Brandy in the train). & put him to bed

I was informed that in a few hours after being put to bed he became comatose & continued in that state for about a week when he had fits of Convulsions lasting for an hour & died.

Post Mortem. 24 hours after death.

On removing dura Mater, Arachnoid very dry & sticky. Pia mater was firmly adherent to convolutions of Cortex which had appearance of being flattened,

Superficial layer of brain tissue was very hyperaemic this was most marked at the base.

in longitudinal fissure there was found a number of particles of lymph.

At Base of Brain evidence of Inflammatory action much more extensive. Layer of lymph extending from Optic Commissure back over pons to Medulla.

Little tubercular granules in abundance were found on vessels in Sylvian fissure, & between the convolutions.

Lateral Ventricles contained clear serous fluid, but not distended

No marked softening of Central Cerebral substance.

Thoracic & Abdominal cavities not opened.

Remarks on H. Johnstone's Case.

This case is of considerable interest to me, because I failed to diagnose it correctly

Patient had been under my care for 5 or 6 days, & during that time I must say that I had not come to any definite conclusion as to nature of lesion from which he suffered

The first day I saw him I was a little inclined to agree with patient in thinking that his illness was due to Gastro Hepatic disturbance, at same time I had suspicion that it might be the onset of some febrile ailment. At my second visit the severity of the headache with the persistent vomiting, & the irregular character of the pulse presented the idea of grave cerebral disease to my mind, & during the remainder of the time he was under my care I was in doubt as to whether the cerebral lesion from which he was suffering was Tubercular or Syphilitic in its nature

Knowing that he had had Syphilis 2 years

previously, & the fact of him having at the present time a small intractable ulcer on tongue which had resisted a good deal of treatment & was not due to irritation of sharp edge of teeth, inclined me to think that patients illness might be due to some Syphilitic lesion.

The absence of any Cough, or signs of disease of Lungs was also very important point.

On the other hand the Tubercular theory was supported, by the Family History. Father died of Phthisis Pulmonalis, premonitory symptoms, wasting, change in mental disposition, - the severe headache, & the persistent Vomiting, which were all certainly in favour of case being Tubercular.

but at the time I was in considerable doubt, & altho' I had as I have said not come to any definite diagnosis up till time he passed from under my care, yet I was rather inclined to Syphilitic theory, which the post-Mortem examination proved erroneous.

This case is a very good example of a patient suffering from grave cerebral disease continuing to go about & not taking to bed till the disease has reached a very advanced stage: he undertook a fairly long railway journey just as the comatose stage was imminent.

The premonitory stage was of considerable duration, & marked by very great change in the Mental condition of patient, he became very gloomy & dejected, & retired from all society, which was quite the reverse of his former healthy condition. He was noted for his jovial free & easy manner, this change in his Mental condition had been going on for a period of 2 or 3 months previous to his last illness.

This gloomy sullen feature in Precursory Stage was in striking contrast with what was observed in Patient referred to in Case I. In Martin's case this stage was marked by no change in his Mental condition his usual chatty & agreeable manner continuing up till time he took to bed, as I was in the habit of meeting Martin frequently I can testify that there was no appreciable change in his mental condition.

This gloomy sullen condition in Johnstone's case is also in striking contrast with the irritable, feverish restless condition usually observed in pulmonary stage of Tubercular Meningitis in Children.

Headache was striking symptom in the case & very severe. It continued up till last day I saw him, the severity of it had somewhat abated during last 2 days of my attendance, this probably accounted for by advance of the disease & approach of the stage of insensibility.

Sleeplessness was another of the usual symptoms of this disease that was very pronounced in this case, he scarcely slept any all the time I attended him, & could not be prevailed on to keep in bed either night or day.

During time he was under my care there was no paralysis or rigidity of limbs, or retraction of the head, symptoms almost invariably present in this disease in children
The only approach to paralysis in the case was the

inability to read noted on the 23rd & probably due to implication of Ocular Nerves, but Ophthalmoscopic examinations not allowed a second time for the reason stated, but at no time during progress of the case when under my observation was there any inequality of the Pupils or Ptosis, symptoms frequently seen in this disease in Children
The Ophthalmoscopic examination did not assist the diagnosis in any way: the Hyperaemic state of Fundus noted, being frequently present in other Morbid conditions having no relation with Tubercular disease.

It is noted in the report that on the day before he left for Durham he considered himself a good deal better, & certainly he did look better than he had done for some days: but he still complained of pain of head if asked about it. Probably this was just that stage of the disease when a remission of symptoms sometimes takes place previous to the advent of Comatose stage, or perhaps after it has set in, this remission a lightening before death being not unfrequent in the Tubercular Meningitis of Children.
In the adult Tubercular Meningitis is not so

frequently met with as in children & young adults, this disease being comparatively rare in adult.

In Glasgow Medical Journal for July 1869, page 260, Professor Gairdner has recorded 2 very interesting cases of Tubercular Meningitis occurring in adults and in his remarks on these cases he refers to the rarity of this disease in adults; & states - "that in more than 20 years Hospital experience in Edinburgh & Glasgow he had seen few cases of Tubercular Meningitis in adults probably no more if so many as one per annum on an average (that statement made in 1869)

Dr. Sagge in Principles Practice of Medicine 1886 gives an analysis of 124 cases of Tubercular Meningitis occurring in "Guy's Hospital London since 1856. "59 out of the 124 cases occurred in patients between ages of 21 & 60 years."

This gives on an average of 2 per annum for 30 years. Statistics of cases occurring in large Hospitals are about the likeliest means of approximating to anything like accurate idea of the relative frequency of Tubercular Meningitis in Adults as compared with Children

For various reasons Registrar Generals' returns are very liable to be very wide of the mark. Dr Sagge states that "these Returns fail to do justice to liability of Adults to Tubercular Meningitis" Dr. Joseph Coats in "Manual of Pathology" states "that Tubercular Meningitis in the Adult is more frequent than is generally supposed" many obscure Head cases being found on Post Mortem to be cases of limited Tubercular Meningitis" (page. 480.)

Dr. Sagge expresses much same opinion as Dr. Coats.

The 2 foregoing cases (Martins & Johnstones) with a third case I met with & kept a note of but have not recorded here (as diagnosis might reasonably be questioned seeing I only saw patient on 2 occasions & there was no post mortem examination) represent all the cases of Tubercular Meningitis I have met with in Adults in an experience of over 6 years of general practice.

During same period I have collected notes of over 20 cases of this disease in Children & Infants, & must have seen at the least half as many more cases of which I took no notes. Ages in cases I have met with ranged from 7 weeks to 12 years. My Notes in

many of these cases are more or less imperfect, many of them having been seen only once or twice. & then perhaps I heard nothing more of the case.

Or patient being in dying condition when I was called in I found I was only sent for, for the purpose of giving a Death certificate as child was in some Insurance Society, this being a custom not uncommon in locality in which I practice. Nevertheless these notes shew the diagnosis made by me at the time, & indicate roughly to me the comparative frequency of Tubercular Meningitis in children as compared with adults: for had I met with cases in adults presenting similar symptoms, or indicating in general way the same diagnosis, I would certainly have noted them at the time.

The reasons for this greater frequency of this disease in children are well known & easily understood. The greater Vascularity of Brain during period of its growth in Infancy & Childhood no doubt is a very potent predisposing factor. Dr Joseph Coats in Manual of Pathology. p. 480

states "that it seems as if the soft membranes of the brain in children were more adapted to the growth of the veins" "and hence Tubercular Meningitis is counted rather a disease of Children"

Again in children the vaso-motor nervous system is more active, & there is also greater irritability of the cerebro spinal nerves in them than in the adult. This delicacy & sensibility of Brain & Nervous system in Children & young people predispose them more to cerebral disease; hence we often find Tubercular Meningitis in children secondary to other diseases as Pertussis, Measles, Scarlet & Enteric fevers &c It is also not uncommon to find this disease secondary or to follow injuries in children such as blows or falls on Head injury to Bones, Joints, &c

Dr Sagge in "Practice of Medicine" refers to several cases of Tubercular Meningitis in children supervening on Falls on the Head, the injury being supposed to be the exciting cause of the disease

Cases of Tubercular Meningitis in the Adult may present considerable diversity in mode of onset symptoms & clinical features generally— he may have the disease setting in without any well marked premonitory stage, but with prominent & violent Head symptoms, Vomiting, intense headache, Constipation &c but no preliminary wasting, as in Martins Case, (No I) running usual course of the disease & presenting most of the recognised symptoms. Or again as in Case No. 2. (Johnstones) may have long precursory stage marked by loss of flesh, & very striking change in Mental disposition this case also being marked by Vomiting violent headache, & Constipation as prominent invasion symptoms; subsequent symptoms irritability, coma & convulsions, being also very pronounced & quite characteristic.

These 2 cases may be said to be very typical cases & contrast in a very striking way with the 2 cases I have already referred to "Reported by Professor Gairdner in Glasg. Med. Journal for Feby 1869" which were remarkable for

an almost complete absence of most of the symptoms commonly regarded as characteristic of Tubercular Meningitis: While the Clinical features of these 2 Cases of Professor Gairdners were very unusual, they were both diagnosed (with certain slight reservations) with Considerable degree of certainty during life. In both of these cases there was absence of such symptoms as Vomiting, Strabismus, Ptosis, true irregularities in Rhythm of pulse or respiration Neither was there any well defined paralysis, or cutaneous hyperaesthesia, grinding of teeth, contraction of ligamentum nuchae, or irregularity of pupils, nor any of the other symptoms such as are usually present in this disease in children.
Presence of Cough with expectoration in one case, & manifest chest mischief in the other, were to certain extent important points in assisting the diagnosis, which was confirmed at Post Mortems

Dr Jagge in Practice of Medicine vol i p. 589. states that onset of Tubercular Meningitis in Adults is comparatively seldom marked by prodromal stage, & that most of the Patients he has seen

have been fairly well nourished at time of death.
That actual invasion is far less often ushered in by Vomiting in Adults than in Children.
Again he states that Epileptiform seizure is not frequent invasion symptom in Adults: & that altho' it may set in gradually & insidiously, it may also set in suddenly with Convulsions, & terminate fatally in a day or two.
He refers to a case (under care of Dr. Wilks in Guy's Hospital) of a Draper, who died within 2 days of having been at business.
According to Dr. Sagge, well-marked local paralysis may be first symptom, a symptom which he is not aware of occurring as an invasion symptom in Children, & cites Cases in illustration Vol I. p. 589.
He also refers to 3 Cases occurring in Guy's Hospital in which Hemiplegia was the earliest & principal symptom.

In the 2 preceding cases post-Mortem examinations revealed extensive inflammatory changes on the convex surfaces of Brain & meninges. This no doubt accounted for severity of the pain which was very pronounced symptom in both cases. Sir Thomas Watson states that pain is greatest when Meninges of Brain are affected, & that delirium indicates that Cerebral tissue is affected.

Treatment in Johnstones case had little chance of doing any service as patient could not be prevailed on to follow it out or take the medicine.
The Blistering that I felt inclined to try at early stage, was with idea of Syphilitic lesion having something to do with Headache from which patient suffered very much, Blister not applied for reason stated.

Case III



"Tubercular Meningitis – following Suppuration of Hip Joint Death in 5 days – Post Mortem Examination"

This case is of some interest from a Medico-legal point of view as it formed the subject of an investigation by the Procurator-Fiscal after the boy's death.

William Landrum, act 10 years. Schoolboy.
19th Decr. 1882.

I received a hurried message to visit this boy as he was said to have taken suddenly ill & was suffering great pain in left leg. I found him lying on back in bed with the leg drawn up, his face was pale & anxious, & expressive of acute suffering. His Mother told me that he had been at school up till 2 or 3 days ago when he began to limp & complain of pain in left hip joint, but he did not take to bed till last night (the 18th) when the pain had become much worse. He had not slept any during the night but lay crying with pain & would not allow leg to be touched.
He is a very nervous boy, & the least attempt

to touch the leg put him into a perfect paroxysm of excitement. Over left hip-Joint the parts were swollen & hot & very painful, but not discoloured in any way, it was impossible to make out if fluctuation was present on account of terror the boy had of leg being touched.

Tongue dry with brown strip down the middle.

Bowels costive.

Temperature 104°

Along with worn & pinched aspect of the face, there is a peculiar look about the eyes, they are very bright & the manner in which he stares at me is rather startling, (this appearance of the eyes impressed me much at the time & occurred forcibly to my mind after the Post Mortem.)

Had severe shivering fit early this morning.

I prescribed a mixture containing.

℞. Quinniae Sulph grs. 2. Potassii Brom. 3ss.

Mist Hyoscyam 3j in Glycirrhiz. Every 4 hours.

Linseed Meal & Poppy Head poultices to be applied to the joint frequently.

Milk & Soda Water. & Beef tea as sole diet. &

to have ice to suck

Evening Visit. Patient much worse. Some new symptoms have developed indicating Brain mischief.
He now complains of severe pain of head, coming on in paroxysms, putting hands to head & crying out with pain of it. Has vomited several times, & has occasional turns of low muttering delirium. he does not complain now of pain of the hip unless it is touched, & when asked where he has pain, answers quite readily that "the pain is all in his head now"
During my visit he is very restless, rolling head on pillow continually & pressing it with his hands
As head is very hot I order hair to be cut off, & ice-bag to be applied
Pulse 140. intermittent
Temperature 104°. 4.
Although from consideration of symptoms I am inclined to suspect presence of pus in the joint, I could not detect fluctuation.

20th

Has been delirious the whole night. Pain in head has been very severe frequently he would put hands to head & cry out. "Oh my head!"
Bowels moved, dry typhoid condition of tongue still present.

Pulse 110 full & intermittent.
Temperature 105°.
Pupils dilated, & respond to light. (he has convergent squint of left eye which is natural to him).
Vomiting worse since yesterday, everything is now rejected almost as soon as he swallows it.
Belly flattened. Sacro cerebrale may be elicited over chest.

At this stage I had formed very gloomy prognosis as I suspected I had to do with abscess of the Brain & I informed parents of extreme gravity of the case, they suggested blistering head which I did not consider judicious.

21st

Patient is in state of stupor this morning, with very slow, sterterous breathing.
cheeks are flushed, & head very hot.
pupils unequal, right much dilated. left contracted.
Urine passed in bed.
Pulse 160. thready easily compressed
Temperature 104° 6.

Evening visit.

in state of deep coma, cheeks flushed, lying sunk

down in bed, with eyes half closed, milk put in Mouth lies in side of cheek & just runs out again, as he had several severe spasms of dyspnoea (probably owing to some fluid passing into trachea) all feeding has been stopped. breathing very slow & irregular.

22nd

Died this morning at 8 O'C after working for an hour in convulsions, the convulsive seizure was distinctly epileptiform in character, & altho it was more or less general the spasmodic movements affected upper part of body principally, muscles of face acting very violently

Before death the Hip Joint had become very much discoloured, & fluctuation could be detected.

(I certified death from Pericarditis & Meningitis)

Family History. Father & Mother both living, very scrofulous subjects, Mother subject to frequent attacks of Bronchitis One brother living age 5 years has suppurating sub-maxillary glands, & caries of one of the Meta-Carpal bones of left hand;

About a week after the boy's death

the Father called on me & told me that the case had been reported to the Police Authorities, as he had found out that about 2 weeks before the illness the boy had been severely assaulted by a man who kept a Coal-Yard & that he believed this was cause of death.

What made it more suspicious was that the man disappeared from locality when he heard case was reported & never returned.

I received a summons to attend at Coroners Chambers for Examination which I did, & stated what I considered to be cause of death.

The result of Examination of Witnesses (5 or 6 people swore they saw the man knock down the boy & kick him) was that Dr. Samuel Moore & I received instructions to have the body exhumed in Glasnevin Cemetery & make a post-Mortem Examination.

Post Mortem 3 weeks after burial.

The body was taken out of Coffin & carefully examined for any marks of injury or fractures, nothing of this kind to be detected, the swelling over left hip was very much discoloured almost black, due to decomposition, the body was very pale & waxy in appearance, but features were in no way

changed from what I had seen them on day he died

There were no signs of bruises or effused blood about the scalp. When skull-cap was removed & Arachnoid exposed it was found to be studded over with granular bodies of a greyish colour, about the size of pin-heads: Dr Moore at once remarked "this boy has died from "Tubercular Meningitis". On removing the brain the granular nodules were more numerous at the base especially in the Sylvian Fissure. Sac of Arachnoid contained lymph-like fluid with little particles of greyish opaque floating in it, lateral Ventricles also contained large quantity of fluid. Centre of Brain was quite softened & pulpy, this was considered post-mortem softening.

A long incision was made over the Trochanter into Hip Joint, & a large quantity of pus was found.

Thorax & Abdomen not examined as Dr Moore considered lesions found were sufficient to account for death from Natural Causes.

The Father was waiting result of

P.M. in the Cemetery & Dr Moore informed him that the boy had died from "Water in the Head" & not from Injury this appeared to satisfy the Father & settled the case which at one time had assumed rather a serious aspect.

A report was drawn up by D. Moore himself certifying the cause of death & this was forwarded to Fiscal & ended the case.

Remarks.

Patient was Scrofulous child belonging to very Scrofulous family & the case is a very good example of Tubercular Meningitis following on injury to a joint, the inflammatory fever set up by local lesion running into fatal activity the latent cachexia.

From what I knew of the patient, (he was a very nervous boy, but at same time very quarrelsome & mischievous) I have no doubt that he had received kick on the hip. & that there was degree of truth in statements of witnesses before the Fiscal. I believe he refrained from informing Parents at time of the injury for fear

of another thrashing.

The case was remarkable in that there was no precursory head symptoms observed before he took to bed, he was going about in his usual way & did not make any complaint & take to bed till 5 days before he died.

On carefully questioning parents regarding his state of health I was informed that he had been to school up till 2 days before he took his bed, up till that time he was in his usual way & took his food well; about that time he began to complain of pain in left Hip, & limped a little in walking, little notice was taken of this for the first day or so, but on the 18th pain in leg became so severe that he was put to bed & fomentations applied.

He never complained of pain in head nor was there any vomiting till day after he took to bed.

The symptoms at first, viz were distinctly referable to the Hip & this no doubt acted as exciting cause of the Tubercular Meningitis. Some of the symptoms usually found in cases of Tubercular Meningitis were present, but general features of the case did not suggest idea of that disease to my mind at the time.

At evening visit on first day I saw him, the symptoms

pain in Head, Vomiting & delirium, pointed in direction of grave inflammatory mischief in Brain or Meninges. the severe rigor in the morning with the high temperature 104°. indicating probable Pyaemia. with strong suspicion of Cerebral abscess

From the first day I saw him (19th) case ran a very rapid course, delirium was very violent on the 20th temperature continuing very high. was in state of stupor on the 21st which merged into deep coma & he died on the morning of the 22nd there was well marked attacks of Convulsions which lasted for an hour the morning he died. Temperature was much higher than usually found in cases of Tubercular Meningitis, this no doubt due to suppuration in Hip Joint. ranged from 104° to 104°.6

Cases of Tubercular Meningitis Secondary to injuries to head, joint, or long bones, are sometimes met with in General practice, I have occasionally met with such cases presenting much same symptoms found in Idiopathic or Tubercular Meningitis running same course, & ending

in death. Since this case of Laudrum's came under my observation, I have met with several others which resembled it very much, the only difference being that they did not follow such a rapid course. Tubercular Meningitis after Injury is most likely to occur in ill-fed, delicate, or scrofulous children, and 3 cases of this nature have come under my observation since the time I had Laudrum's case under my care. I have narrated briefly in this Paper these cases as they resembled Laudrum's case very much. Post Mortems unfortunately could not be obtained in any of them, & this no doubt detracts from value of the brief reports: Still so far as Clinical History & watching Symptoms that were present are concerned, I have no hesitation in thinking that if Post Mortems had been obtained the same state of matter would have been found as was seen in Laudrum's case.

Dr. Churchill, "Diseases of Children" refers to Blows on head as an exciting cause of Tubercular Meningitis. The popular notion that "blows" on the head are liable to be followed by "Hydrocephalus" is no doubt true to certain extent, for we occassionally meet with cases

of injury to head in children, especially in Scrofulous children in which the symptoms presented are very similar to those met with in Idiopathic Tubercular Meningites.

The following case is an example of this nature.

Case IV

Case A. "Injury to Head, followed by Cerebral Symptoms – delirium – Coma – Death"

(I only saw patient on 4 occasions)

James Johnstone. aet. 4. years.

9th August 1884. I saw patient for first time today & was told that he had fallen down a stair a month ago & hurt his head, he complained a good deal of pain for a day or two but did not appear to be much out of his usual way. he was kept in the house for a day & got some purgative medicine, but with this trifling exception little attention was paid to the injury.

He returned to school & no complaint was made of the head till about a week ago

Family History.

Father & mother both living, scrofulous.

1 sister living scrofulous cicatrix on neck

1 brother age, 3 years. died from convulsions following Measles.

When he again said his head was sore, & went off his food, he was then put to bed & some purgative medicine administered

For 2 days he has been vomiting & retching a good deal, nothing will stay on stomach, even a little cold water is vomited soon after he takes it He complains of pain being worst on vertex & on forehead, & has been much worse at night preventing all sleep.

Pulse 80, soft & intermittent

Temperature 101°.4. Tongue moist with white fur, tremulous

Head very hot, cheeks flushed, eyes very red & watery, pupils dilated, sensible to light, he complained this morning of seeing double, said there were 2 women in the room when only his Mother was present.

very dull & morose, & wishes to be left quiet & not disturbed in any way

Hair to be shaved off head, & cold applications applied

To be fed with Milk & Soda Water small quantities frequently.

Linseed Meal & Mustard Poultices to be applied over Stomach & bowels & frequently repeated.

following mixture prescribed.

℞ Ammon: Brom 3iii
Mist. Hyoscyam 3ii ss
Glycerini 3iv
Aq ad 3iii M.

Sig. 3ij every 3 or 4 hours in water.

As bowels were costive he was to have Soap & water anema

10th

Still vomiting, all food & medicine rejected. bowels moved with the injection; during the night he jumped up in bed frightened & screaming with pain of head. no sleep.

Pulse 84. intermittent. Temperature 101°.

Belly flattened, Pain cerebral present on trunk

Pupils dilated equally.

great heat of head over occipital region, & cold compresses to be kept constantly applied.

Medicine to be continued.

11th 8. p.m.

slept a little this forenoon, first time for 3 or 4 days, he is now in condition of low muttering delirium. & refuses all food & medicine

bowels not moved since injection. pupils equal

with squint of left eye. this morning early he had bad screaming fits was very delirious & could scarcely be kept in bed.
Pulse 80, soft & intermittent. Temperature 100°.4

I was not asked to see him again till the 16th when I found him in a violent convulsive seizure which affected the whole body. Spine was rigid teeth firmly clenched & quite unconscious, the breathing was hurried & very difficult.

The fit passed off in half an hour, & arms & legs were quite rigid, with considerable retraction of the head, breathing became very slow & stertorous.
Pupils unequal, left squint still present.
lies sunk down in bed in semi comatose & stupid condition
He continued in ~~it~~ this drowsy condition till the 18th when he died quietly.

For 2 or 3 days after I saw him on the 11th he had been very restless & irritable, screaming with pain of head a great deal, but after that

he was dull & drowsy, & continued in that condition till Convulsions on the 16th

Duration of Case from onset of decided head symptoms about 10. or 11 days.

Case V

Case, B.

"Injury to Elbow Joint in a child, followed by Head Symptoms a month afterwards – Convulsions – Coma – Death in 6 weeks from date of Injury"

P. Mc. Connel. aet 9 years. 1884.

Patient was under my care in January for fracture of Right Radius which was put up in Splints & did well. He had always been a very delicate boy, but his health failed very much after he got his arm broken, & he gradually lost flesh & pined away without any definite complaint of illness.

Family History. Mother suffering from Phthisis of which she died 6 months after this boy. Father died of Phthisis in Royal Infirmary

in February 1886.
1 Sister & 1 Brother died of Chest complaints in Infancy

At the end of March patient fell on a Stair & hurt his left Elbow joint, at the time nothing was thought of the injury but after a time it began to swell & became very painful, & by the middle of April when he was brought to my Surgery the Abscess that had formed round joint had burst in several places, & was discharging nasty smelling gruelly matter, & on using probe bare bone was detected.
Arm was dressed, & advised as to diet & as he was in very low state of health, tonic medicines, were prescribed with Cod Liver Oil.
I learned afterwards that he had been taken to Royal Infirmary where excision was recommended but parents did not consent to this. & I did not see him again till
16th May when I received a hurried message to visit him as he was said to be in a "fit". I found him in violent Epileptic convulsion which was general, muscles of face & eyelids were acting very violently, teeth were firmly clenched

& he was quite unconscious. breathing was hurried & very much laboured. pupils were widely dilated & there was squint of left eye.
Head at same time was very hot, & face flushed. Spasmodic movements were so violent that it was quite impossible to count the pulse which was at least 140.
Convulsion lasted for about 2 hours, he returned gradually to consciousness, & during remainder of the day he was very restless & complained much of pain in the head.

I was informed that for some days previous to the "fit" he had been sick & vomiting. He inclined to sit over the fire wishing to be left alone, complained a great deal of the headache, refused his food & did not sleep any at nights.
bowels had also been very costive.
Convulsion came on without any warning.
The morning after the convulsion he became Comatose & continued in that state till he died 2 days afterwards. (I only saw patient

twice in the house, once at time of the Convulsion & again when he was in Comatose state).

Case IV

Case C.

"Injury to Elbow joint with Suppuration. followed by Head Symptoms— Delirium - Coma - & Convulsions. Death in 2 weeks from Injury"

Ann Mc Garrigle. aet 8 years.

about the beginning of August 1884, she fell & injured her right elbow joint & was brought to my Surgery soon after accident happened. Joint was very much swollen & very painful to touch, or on moving arm. I advised as to treatment.

Family History. Father & mother both living very Scrofulous subjects.

Patient is fair haired girl with very clear complexion & red cheeks, she has always been very delicate & subject to Bronchitis.

Was operated on in Royal Infirmary Some

time ago for disease of ankle joint.
1 Sister died of Hydrocephalus at age of 2 years.
as the Parents are in very poor circumstances
child is often on very scanty allowance of food.

I saw no more of patient till 8th August. when
she was confined to bed. joint was very much
swollen painful & fluctuant & child in state of
Hectic Fever. Temperature 104°
Pulse 140, full & soft
Tongue dry. brown strip down centre, great
thirst & bowels very costive
There was no complaint of pain in head, vomiting,
or shivering.
Head was very hot & cheeks much flushed.
As parents would not allow abscess to be opened
I advised them to continue the poultices on
the elbow & prescribed some powders.

The next time I saw patient was on the 16th
Abscess round elbow had burst in several
places & was discharging unhealthy pus.
For some days back she had been very sick

& vomited almost everything she took Head symptoms were now the prominent feature in the case. & the elbow joint was not complained of at all Pain in head has been very severe, & she is very irritable & uneasy, wanting to be lifted out of bed & nursed at one time, & she is no sooner lifted than she wants back to bed again, at times she screams out with pain & the head presses it with hands & knocks it on pillow

Tongue was moist & covered with white fur

Pulse 60. intermittent

Temperature 102°. 4

bowels not moved for some days.

Pache cerebrale easily produced on Chest & Forehead & lasts for considerable time

I prescribed mixture containing Potassii Brom. Tinct Hyoscyam. & Spt Ammon Arom. to be given every 3 or 4 hours. & advised cold applications to the head.

I did not see her again but I was informed that from this day she gradually became quieter, & for last 2 days of life she

had slept very sound, & parents thought she was getting better as she was sleeping so nicely, but on the morning of the 20th she took a convulsion which was very severe, lasted for half an hour, & died in the "fit".

The father informed me that 2 nights before she died she had started up with loud "scream or "yell" 3 or 4 times, but at same time was quite unconscious.

Remarks. In these 3 cases which I have reported so far as they came under my observation, the symptoms pointed point to Brain as cause of death, but absence of post Mortem leaves to certain extent room for doubt as to actual nature of lesion. For several reasons I am inclined to consider these cases of Tubercular Men in gitis following Injuries.
(1) Family & Personal History in 2 of the cases there were indications of Scrofula both in Parents & Patients in one of the cases (Mc Connels) Father & Mother both died from Phthisis pulmonalis.
in Mc Farrigles case a sister died from "Hydrocephalus"

when 2 years of age.

(2) Symptoms corresponded to considerable extent to what are usually seen in many cases of Primary Tubercular Meningitis.

(3) Great resemblance each of the cases bore to that of Landrum's Case III p. in whose cases there was history of Injury followed by Head Symptoms, & ending fatally — Post Mortem revealing well-marked Tubercular granules in the Meninges.

Case VII

Four following Cases all occurred in one Family.



"Tubercular Meningetis in a child —
Duration 18 days. — Death"

Alexander Speirs. aet. 15 months.

This child was brought to my Surgery in the first week of Dec 1880 & the story told by the Mother was to the effect that he had not been thriving for some time: he was languid, fretty, & appeared to be wasting away: he had always been a good child & easy nursed up till 6 weeks ago, but about that time he cut 2 teeth & since then he has not been the same child.

He has been very irritable, Crying almost constantly & mother had to walk up & down room with him night & day to lay & pacify him.

The Mother was under the impression that it was teething that was causing the irritability, affecting his health & causing wasting. She had put off seeking Medical advice thinking that when he cut more of his teeth his health would improve. I examined his gums & found he had cut 4 teeth in all & the mucous membrane over lateral incisors being red &

swollen. I lanced the gum which bled freely
He is still on the breast fear of teething having prevented weaning
Mother states that she has menstruated regularly all the time
she has been nursing child. On enquiry I find
that he has vomited a good deal during last 3 or 4 days,
he was at same time very greedy on the breast, but he no
sooner had taken a drink than stomach rejected it, &
distressing retching also came on at times when nothing
came up. Bowels were costive, no importance was
attached to this seeing he vomited all his food.
Tongue red at tip & edges. yellow fur posteriorly
Pulse 140. irregular in force & duration of beat
Temperature 101°
Head very hot, anterior fontanelle pulsating & prominent
This condition probably aggravated by crying of child
which has been incessant since he was brought into
Consulting room.
Belly soft, & flattened.
Has had slight barking cough for some time back
but examination of Chest does not reveal any indications
of disease of Lungs.

At this time I considered I had to deal with
case of Gastric disturbance, with probably some cerebral

Family History.

Father suffering from Phthisis Pulmonalis at present time (March 1886.)

Mother. age 36 years, living, had attack of Pneumonia some months ago, is now suffering from Cough & weakness. (April 1886).

2 sisters & 1 brother died of Tuberculus Meningitis (their cases are the next 3 reported in this Paper).

3 sisters living. 6 years 8 years. 9½ years.

irritation due to teething.

Treatment recommended. Diet to be restricted to small quantities of Milk & Lime Water at frequent intervals. Large Linseed Meal Mustard poultice to be applied over Stomach & bowels every hour for 3 or 4 hours.

The following Mixture & Powders prescribed.

℞ Potassii Brom gr. 80.
Infct. Hyoscyam
Spt. Ammon. Arom aa 3ij/
Glycerini 3iii
Aq ad 3ii ℔.

Sig. 3j every 3 or 4 hours in water.

℞ P. Jalapae gr. 20.
Calomelanos. gr. 3. ℔.
Div in pulv. xii.

Sig. One night & morning.

7th W Visiting Child today I found him no better. Vomiting still continues, bowels have moved. Face has very worn & pinched aspect, eyes are bloodshot & sunk & surrounded by dark circle.
Very uneasy & restless will not lie in crib, has to be carried about in arms constantly, at times has very

violent fits of screaming, evidently due to pain, but from what I saw of them during my visit these screams do not resemble in character the "cri" of tubercular Meningitis, but are most probably due to Colic.

There is almost constant rolling of the head, & over occipital protuberance the hair is quite worn off the Scalp, Mother states that this is due to the habit he has had of boring head back into pillow & rubbing it. This has been going on for some time.

Head very hot, fontanelle still full & pulsating.
"Vaché Cerebrale" may be produced on almost any part of trunk & on cheeks.
Pulse 120. intermittent
Temperature 101°.

To be kept quiet in darkened room.
Head to be shaved & ice water cloths kept applied as much as possible
To be fed regularly with Milk Soda Water — & raw beef tea in small quantities at frequent intervals.
Calomel & Jalap powder to be continued. & to have mixture containing ℞ Potassii Nom. Potassii Iodidi aa grs 5. with Tinct Hyoscyami gtt 5. in water every 4 hours. —

9th No change in condition Yesterday, Sleeplessness &

restlessness very distressing, has not slept any for some days till last night when he would doze a little now & again, & since then he has been in a semi=
= drowsy condition. Several times he started up with a loud scream - but soons relapsed into drowsy state again; altho in this drowsy condition he keeps rubbing head & ears with hands almost constantly.

Vomiting has ceased since last night, & has not taken breast at all since that time;

During my visit he lies on back with eyes half closed, rolling head from side to side continually, & on my attempting to examine his eyes, he puts up his hands to prevent me, tries to keep them closed & pulls away his head

Grey hound belly well-marked.

Pulse 120 intermittent

Temperature 100°.

Ry Blister to be applied to right side of head.

Mixture & Powders to be continued.

10th " Blister has acted well, & contained large quantity of serum. Was very uneasy during night from the irritation of Blister which was cut & large warm bread & milk poultice had been applied.

Vomiting has returned, bowels not moved for 3 days.
Pulse 100. irregular & intermittent.
Temperature 100°.
Pupils dilated equally & respond to light.
The little patient is now much emaciated, & this together with the pinched & wearied expression of face & sunken eyes presents the physiognomy of of Acute Hydrocephalus in marked degree.

11th " 9. P.M.

Since blister on the head rose yesterday he has been quieter & rested better, had a fairly good night last night, only wakened on 2 or 3 occassions screaming & frightened like.
bowels have been moved, vomiting ceased entirely, & takes all food greedily
Tongue moist & covered with white fur
Head still hot, & fontanelle prominent, Veins over head especially over frontal & temporal regions are very prominent & swollen.
"Tache Cerebrale easily produced & lasts for considerable time over chest & abdomen.
Pulse 100 intermittent
Temperature 102°.

Since afternoon drowsiness has increased & I decide to apply another Sly Blister this time over Vertex.

12th

At my visit this forenoon I found that blister over Vertex had acted well & he did not seem to be so much distressed with it as with former one. This freedom from irritation I do not consider due to any increase in Comatose condition, as child is certainly brighter & livelier today, the drowsy state having almost completely disappeared: He recognises Mothers voice today quite well, & follows her movements with his eyes quite in his usual way, & in a general way takes more interest in his surroundings than he has done for some days

pupils equally dilated, & respond freely to light.

In spite of the apparent improvement in childs general appearance today I do not think him any better, I am inclined to consider the improvement more apparent than real, on account of the Pulse which is 80 & intermittent missing one every 5 or 6 beats.

there is also a new symptom noticed today for first time. Namely: rigidity of arms with the thumbs drawn inwards to palms, & fingers firmly clenched over the thumbs.

14th

Since last night there has been a return of the drowsiness, with pitcous moaning turns now & again.

At 3 a 4 occassions when apparently dozing quietly he opened his eyes & gave out to what Parents described as an "unearthly yell" unlike the screaming fits he had at beginning of illness.

When Mother lifts him on her knee he cries as if in pain, & head falls back over her arm as if he had no control over it.

Stupor deeper today than it has been yet.

Pulse 90 intermittent

Temperature 100°.

still taking the Milk Soda Water.

Potassii Bromi omitted from his Medicine, & to have 5 gn of Iodide of Potassium with 5 drops of Tincture of Cinchona in water every 4 hours. & powders containing 1 gr. P. Hydrarg c Creta at night & morning.

By this time I had formed very gloomy

prognosis & informed parents to that effect, but at same time I am inclined to try effect of another Blister on head.

15th

During last night has had an attack of what the parents call "inward convulsions" which affected left side of body & same side of face, during time the "fit" lasted left arm & leg were in constant motion, & spasmodic movements of facial muscles & eyelids were very violent & gave the child a very "frightsome look" as the people called it. right arm & leg were quite still during the fit which lasted for 2 hours. child is now in state of stupor, legs & arms are still rigid palms of hands are turned downwards & thumbs firmly flexed in palms.
Moving him or touching him causes him to cry as if in pain.
pupils are unequal, & respond slowly to light eyes are very red, & covered with mattery discharge.
passing motions & water in bed, altho there is considerable degree of stupor still takes food.
Pulse 80. intermittent.

Temperature 99°.6.
Blister put on head yesterday has acted but child did not appear to be conscious of any irritation from it.

16th 8. pm. Child in state of deep coma. lies on his side with knees drawn up towards abdomen, & head drawn backwards.

At this visit I heard the characteristic "Hydrocephaloid cri". this is 2nd time I consider that it has occurred during progress of the case, altho the parents think that the same cries I noticed today have been present more or less from almost the start of Child's illness. Child was quite unconscious during the "cri" & I noticed that it was preceded & followed for a minute or two by moaning & rolling of the head Pupils right dilated, left contracted to pin-point.

There is no attempt at swallowing since morning & as he lies sunk down in bed with mouth & eyes half open, flushed cheeks, & very slow & irregular breathing he presents a very piteous sight. Temperature 99°

Pulse 140. thready, & easily compressed.

18th Coma not so deep today, & there is a good deal of moaning with considerable restlessness, shifting about in bed & rolling head uneasily, power of swallowing has returned & has taken some milk
pupils still unequal, ptosis of right eyelid.
passing water constantly in bed, causing very penetrating & offensive odour all thro the house,
Pulse very rapid, & small,
breathing very slow & irregular,
20th
child evidently dying, food runs out of mouth.
breathing very slow, respirations 6 per minute, & very irregular
complete paralysis of lower limbs, slight attempt at moving right arm, but left is quite motionless
Pulse so quick that it is impossible to count it.
left pupil contracted to pin-point, right very large.
21st
had severe fit of convulsions this morning which lasted for an hour, spasmodic movements passed off gradually leaving him still unconscious, he remained in this dead motionless condition till about 12 oC when violent jerking movements set in all down right side

of body including muscles of face, these movements gradually subsided in about 2 hours leaving only slight twitching movements of facial muscles which continued till the end.

Died quietly at 4 p.m.

Had been comatose for 6 days.

Family History of 3 following cases
given at page. 152.

Case VIII



"Tubercular Meningitis in a child of 10 months – terminating in Death in 3 weeks."

2nd Child.

Maggie Spiers aet 10 months. 1883. had been ailing for a few days in the beginning of February with the cold & slight cough, when she was seized suddenly one night with "Laryngismus Stridulus". This disappeared in a few days & my attendance ceased, child was improving this rather week. About 10 days afterwards 18th Feby I was sent for, to see her again as Parents were not satisfied with the way she was getting on, she was not gathering any strength, & was very dull & inclined to lie in bed, & took no notice of anyone.

She was very pale & spent in the face, eyes were dull & sunk, the Mother remarked the peculiar appearance of the eyes & asked me "if I did no think there was something the matter with her head"

She was inclined to lie & doze all the time, there was no thirst,

& She appeared to have distaste for the breast within the last day or two she has vomited 2 or 3 times, & has had severe turns of retching when nothing came up, bowels are costive, but as little food has been taken for some days this was not thought of any consequence.
Pulse 140. irregular in force of beat.
Temperature 100°
Tongue slightly coated with yellow fur, belly soft & flattened, not tender
Short dry cough, Auscultation & percussion of Chest give negative results.
no appearance of diphtheritic membrane in throat.
no heat of head, nor anything unusual about pupils.
As there was no signs of any pronounced disease but just a condition of general "malaise", I reserved my diagnosis. However bearing in mind the death of last child in this family from Tubercular Meningitis. I hinted to the Parents that there might be disease masking in the Brain; & sequel proved it was well I did so.
I prescribed a mixture containing ℞ Acidi.

Hydrochloric dil & Inct Cinchonae aa gtt 5. in
Glycerine & water 4 times a day
& also alterative powder containing.

℞ P. Hydrarg c Cretae gr. 6.
" Rhei gr. 9.
" Sodae Bicarb gr. 12 M.
Ft pulv. et dtur in pulv. x ii.
Sig. One night & morning.

To be regularly fed with Milk & "Nestles Infants Food" in small quantities frequently.
To have small quantity of Sherry Wine 2 or 3 times a day.

19th July. 2nd day.
in much same state as yesterday, taking rather more food, & takes the medicine well
appears to be always sleeping.
no vomiting, & bowels have been moved.
pulse 120. soft, & easily compressed.
Temperature 101°.
"Jacks Cerebrale" may be elicited over almost any part of body; as there was no new symptoms present today I was not inclined to found my

diagnosis definitely on the Tache Cerebrale, & could only tell the Mother that I did not consider child any better, & that I had still fears of Brain becoming affected

20th Feby. had convulsion this morning, which was more or less general, & lasted half an hour. during it child was quite unconscious, trunk rigid & arms & legs in constant motion, Spasmodic action of Muscles of Face was extremely violent.

A Soap & water injection was given during the "fit" & brought away a few nodules of hardened faeces. When Convulsion passed off she was in very drowsy condition.

Ly Blister to be painted on Vertex, & following mixture prescribed. ℞ Potassii Iodidi 3ij.

Glycerini 3iv

Aq ad 3vj. M.

Sig. 3j every 4 hours in water.

5th day 23rd

Has been very restless & uneasy since Blister was put on head, she moaned & rolled head nearly all the time till it had risen very well

When it was cut & large quantity of Serum let out.
Since Blister was let out child has seemed easier, & slept better & when she wakened up she looked brighter & more refreshed, & wanted the dull stupid look she had before blister was put on.
Today there is degree of paralysis of right side of face, & mouth is slightly drawn to opposite side
Pulse 100. intermittent
Temperature 99°. 6.
Head hot. pupils dilating & contracting rapidly when exposed to light.
Tongue clean & moist. Bowels moved
Takes food greedily abdominal wall much sunk.
I did not consider child any better today but ordered her to be well fed.

25th 8th day.

Since last note 2 days ago child has been very irritable & restless, has not slept any during the last 2 nights, but is inclined to sleep a little today, altho' dozing somewhat she moans a good deal & takes turns of rolling head at times during night she had some bad screaming fits. & parents

described the screams as something very "frightsome to hear" they thought she was unconscious at these times.

She has taken a considerable amount of food all along but in spite of this she appears to be slowly but surely wasting.

On one cheek there is a bright red spot & the eyes are blood-shot & very much sunk.

Vomiting has ceased entirely.

Cough has become more troublesome, but examination of chest does not reveal anything further than a few bronchitic rales.

Pulse 96, intermittent

Temperature 100°.

Tache cerebrale easily produced on any part of the body almost.

5 ℘ of Potassii Brom was added to each dose of the medicine she is taking.

Cold applications to be applied constantly over head especially occipital region which is very hot.

As I was now convinced in my mind that this was case of Tubercular Meningitis I gave the parents a very gloomy prognosis.

6th day 26th On visiting child today I

was very much surprised to find her to all outward appearance very much better, the betterness consisting in child being brighter & livelier than she has been since illness began; She is interested in little attentions of the Mother takes the breast readily, follows Mothers movements with her eyes, & appears pleased she is noticed & lifted out of crib.

Parents were very much gratified with this change & were sure child had got turn for the better, & asked me if I did not think may diagnosis was wrong as child looked so well: at first I was just a little inclined to think that this might be the case, but after examination (altho child certainly did look better) I satisfied myself that there was no actual improvement, there was no new symptom present but I based my opinion mainly on the slight paralysis of face, character of the pulse & Family History.

Pulse 90. intermittent & irregular,

I was also aided in diagnosis by consideration of fact that considerable remission of even bad symptoms is not unfrequent in Tubercular Meningitis & that this had also occurred to a slight extent

with their last child.

I ordered child to be kept quiet & well fed, & advised the parents not to trust too much to any apparent betterness.

The next day 16th from the Laryngismus Stridulus, Child had another convulsion which I was called to see, the one side (left) of body was affected this time, & same side of the face the constant working of eyelids & contortions of features from one side of face gave child a very ghastly appearance.

8. pm. child still working in convulsions which has now become more general, teeth are firmly clenched, & fit is distinctly epileptiform in character, facial muscles not quite so violent in action as they were in forenoon

Pulse 140. irregular

Temperature 102°.

Pupils unequal, convergent squint of left eyeball,

17th day, Convulsions lasted for nearly 12 hours, & child passed gradually into state of Coma which gradually deepened for next 5 days when she had another Convulsion & died in it.

took food up till 2 days before death.

For last 48 hours of life it was quite impossible to count the pulse as it was so very quick.

"Tubercular Meningitis – following a
severe attack of Measles in a child –
Terminating in Death in 22 days."

3rd. Child.

Janet Speirs. aet 13 months.

In March 1885 I attended this child during
illness from Measles & Bronchitis, the attack
of Bronchitis was a very severe one, but she
made a good recovery in about 3 weeks, &
regained her usual health & spirits, with the
exception of a very slight cough.

On the 18th July I was sent for, to see her again
Skin was very hot. Temperature 102°.6.
Pulse 140, regular.
flushed face, bloodshot, watering eyes, & running
at the nose. From consideration of symptoms
I suspected Measles again, altho' I knew she
had Measles 3 or 4 months before.
I advised warm bath, & prescribed for her.

Dr. A. Jamieson took up the case at this
point as I was going my Holidays on the

following day.

When I came back from my Holidays I took see the case again, & Dr Jamieson told me that during my absence child had a very severe attack of Measles & Bronchitis (before I left I had told him that she had Measles 4 months before that). he also said that he was afraid there was some disease making in Childs head.

4th When I saw her today she was lying in crib on her side with knees drawn up to the belly & head very much retracted. breathing was very slow, irregular, & quiet. face was flushed, & there was considerable heat in the head, & prominent fontanelle Pulse 80. intermittent & irregular. Temperature 100°.

She has been vomiting & retching almost constantly for the last 2 or 3 days, almost everything she takes being rejected by the stomach.

Mother states that only thing in which this attack of Measles differed from previous attack was the fractiousness & sleeplessness, &

that she rolled her head very much
but there were no piercing cries same as her
last 2 children had who died from Hydrocephalous
Tongue moist & covered with white fur.
bowels costive, belly much hollowed out, & altogether
child is very much emaciated & spent
Careful examination of chest does not reveal
any indication of Pneumonia.

6th "

rested very badly yesterday & last night
Tongue clean, but still vomiting, bowels have
been moved with purgative powder
Head very hot, pupils much dilated.

7th "

under influence of Potassii Brom gr 10. every
4 hours, she rested better last night, & is rather
drowsy this morning & dose of Potass: Brom has
been reduced.
Pulse 60. intermittent
Temperature 100°. 6
Vomiting ceased entirely.
Ligamentum nuchæ rigid, head much retracted,
She cries very much when she is lifted

up or head moved or touched in any way.

On the whole child's condition is not any improved today. & I look on case as one of Tubercular Meningitis & inform Parents to that effect. Mother fairly broke down when I told her that she was suffering from same disease that carried off her last 2 children.

8th

Was sent for early this morning to see the child in a Convulsion. the fit was general, & spasmodic movements of muscles were very violent especially in the face, teeth were firmly clenched & child was quite unconscious. Arms & legs also tho they were jerked about almost incessantly were rigid to a certain extent.

Pulse as near as could be counted during the fit was 160.

Convulsive movements lasted for about an hour & a half & passed off gradually, leaving her in semi comatose condition, mouth half open & the eyeballs turned upwards so that only the "Whites" of eyes were visible underneath the half closed eyelids, swallows milk slowly when put in mouth,

rolls head very much at times, with low moaning
now & again as if in pain
Evening Visit- 9.30 pm
double squint present, pupils do not respond to light.
present retraction of abdominal wall.
Pulse 160, easily compressed.
Temperature 99°8.
Face cyanosis, present easily produced Hasting
Gh child in state of complete coma,
breathing very slow & irregular.
dragging of facial muscles to right side.
milk runs out of mouth.
Motions & urine passed in bed.

She never regained consciousness but died quietly
on the 10th 3rd day from onset of the coma
& 22nd from beginning of attack of Measles.

There was no return of the convulsions, but on
morning she died there was slight spasmodic twitching
of muscles of right eyelid & brow.

Case X

4th Child. "Tubercular Meningitis in an Infant" 1885.

Ethel Speirs. aet 3½ months. 1885.

On returning from my Holidays this year I was told by my "Locum Tenens" (Dr. Jno Brown) that he had been called during my absence to see this child; & that he found him feverish, with high pulse, & very restless. Tongue was white & there was a little vomiting of curdled milk, nothing to be detected indicating Chest mischief.

The considered child was suffering from some Gastric disturbance & prescribed for it, but did not state anything definite as to diagnosis.

Dr. B did not see child again, & I learned afterwards the people had called in another Medical Man.

When Dr. B told me the above facts I ~~told~~ informed him that these people had already lost 3 children from Tubercular Meningitis & that I would not be the least surprised to hear that this child had died from the

same disease, & in one sense I remarked that I was rather glad that I was from home when it had taken ill

In the Month of September the Mother (Mespers) called on me, & told me that she had called in Dr Chalmers to attend this child & that he had died from "Tubercular Meningitis". She gave me particulars of Child's illness: he had been ill 4 weeks & 2 days, principal symptoms were Vomiting, great restlessness & sleeplessness, piercing cries & rolling of the head which were very striking symptoms in the illnesses of her other 3 children, were also present in this case. During last week there were Convulsions, then coma set in & he died quietly.

Dr Chalmers had said to parents somewhat emphatically that "Instrumental Delivery" had something to do with Child's disease & very likely also with the illnesses of their other 3 children that died from Tubercular Meningitis.

& the Mother questioned me specially about this matter, as I had attended her during

her Confinements with three 4 children that had all died in the same manner, & in each case I delivered her with the Forceps" with considerable difficulty.

Up till last illness this child had been thriving very well as shown by his plump, rosy appearance, he was a very big child for his age.

The Mother made the remark that she often wondered how he did with so little sleep, he slept so very little that she often remarked it, & wondered how he could do with so little sleep, so different from any other child she had ever seen. He was moreover very ill to nurse, & very heavy on the breast, & had been in habit of vomiting more or less all along.

In this case I am inclined to think that the heat of the Sun was exciting cause of the Meningitis, & informed Mother to that effect. The Months of June (from middle) & July of that year were exceptionally hot, & Child had been usually taken out a good part of the middle

of the day regularly for some time before illness set in; & as the nurse was a young girl she may not have been very careful about keeping in the shade when out with child.

In no other way can I account for the disease setting in so early in this child, which was stout healthy & had not begun with teething, nor had there been any infantile ailment present at the outset as was the case with the last 2 children.

The feverishness, high pulse, & great restlessness, noticed by Dr Brown when he saw child at first, was probably initial stage of cerebral lesion, & not unlikely symptoms to be present in case of a young child unused exposed to direct heat of Sun's Rays.

## Remarks on Cases.

### Speirs' Children

The occurrence of 4 consecutive cases of Tubercular Meningitis in one Family, 3 of them coming under the care of one Medical Man is sufficiently noteworthy to call for remark. That Tubercular Meningitis may carry off several members of a family is well known & referred to by most Writers on the subject. I have on several occasions attended families where there were 2 successive deaths from this disease, but Speirs' family is only one that I have attended where more than 2 deaths have occurred.

With reference to this point I may state that I know of a family in which there has been 4 consecutive deaths from "Hydrocephalus", ages ranging from 6 months to 8 years. Father & Mother are living, strong, healthy to appearance, but most of the children that died were affected with Rickets to very marked degree. There was distinct family History of Phthisis Pulmonalis 2 Maternal Aunts of the children having died from Phthisis Pulmonalis.

With regard to Causation in Case of Speirs children there is clear Family History of Phthisis P. Father suffers

from Phthisis & Paternal Grandparents died of Chest complaints when comparatively young.

In my notes of the case of 4th & youngest child (3½ months) it is stated that Dr. Wm. Chalmers (a practitioner of extensive experience) suggested to Parents that "Instrumental delivery" had something to do with causing Child's Illness, an opinion I am not disposed to agree with. And I may state that Mother called on me after Child's death in reference to this matter as I had attended her during her confinements with these 4 children. At each confinement she was delivered with "Forceps" after considerable difficulty which was owing to shape of the head in each instance. (large & square or box shaped).

The fact of the last child dying at age of 3½ months impressed Parents very much with idea that the Instrumental delivery had something to do with the illness. I reminded Mrs Speirs that her 2 oldest children were delivered with "Forceps" & were to all appearance healthy; & as I had no doubt of the hereditary nature of the deathness to which her children fell victims I told her that I could not agree with Dr Chalmers. I considered the

exciting cause of the disease in her youngest child to be probably exposure to heat of the Sun in middle of the day. The month of June 1885 from about the middle of it was marked by very warm weather, & knowing this & having been informed that child was in habit of being taken out into open air a good deal every day just before this illness came on I thought this not an unlikely cause.

Instrumental delivery as a factor in the causation of Tubercular Meningitis is not referred to by any authority so far as I have read. Prof. Wright of Edinburgh in his "Essay on Dropsy of the Brain" 1768. says "that sometimes the Brain may have suffered so much in the time of birth by compression of the Skull as afterwards to give rise to collection of water in its cavities"

This compression may happen with or without Forceps, but as factor in Causation of Tubercular Meningitis I am inclined to consider compression

during Labour a very trifling one.

I have attended nearly 1700 Midwifery Cases. a large number of these being "Breech" cases. & on referring to my case book I find that "Spare Children" are the only instances where I have delivered instrumentally & children have died from Tubercular Meningitis. at any rate they are the only cases that have come under my notice.

The fact that the disease is not so frequent during 1st year of life as during the 3 or 4 succeeding years, militates I think against the idea of instrumental delivery having any share in exciting tubercular tendency.

Observation bears out the fact that predisposing or exciting causes of the disease must be something that acts thro' the medium of the Vascular system, seeing the disease not unfrequently follows Measles Typhoid or Enteric Fevers, Pertussis, or other diseases of a debilitating nature. For the above reasons I beg to differ from an old practitioner in regard to idea of instrumental delivery having anything to do with causation of Tubercular Meningitis.

In the case of the first child (although

teething I have no doubt was exciting cause.
& it is also to be noted in reference to this
case that Mother menstruated during time
she nursed this child, & that he was
kept on the breast 15 mons, 2 causes
which would no doubt act injuriously by
impairing Child's general nutrition.
Although the usual premonitory symptoms
were present, & vomiting, constipation &
restlessness marked invasion, I was a little
inclined to look on illness at first as due
to teething, but after short trial of treatment
& with the decided head symptoms continuing,
I diagnosed it with considerable degree of
certainty; the case turned out a very
typical one & presented most of the
recognised symptoms: As sometimes
occurs even in most pronounced cases
there was a remission some of the
worst symptoms before stupor set in.
Nothing in the way of treatment appeared
to have any effect.

2nd Child Maggie. cerebral symptoms

were rather indefinite at onset, but the consideration of Family History & the general appearance of child suggested idea of Tuberculus Meningitis very strongly to my mind, & the marked epileptiform seizure at early stage confirmed my diagnosis. Altho' the "Jacksonian" was present as an early sign I did not attach any importance to it.
Vomiting was not so persistent or striking a feature in this case as in 1st Child
"Cri H" present in this case also.
Remissions of symptoms were more marked.

3rd Child Janet. When I took over this case from Dr Jamieson on return from my Holidays, the symptoms were quite characteristic, & the diagnosis comparatively easy
Vomiting, restlessness & intermittent pulse &c indicated lesion pretty well.
"Cri H" was absent but there was marked rigidity of muscles of cervical region of Spine & Slight retraction of the head.
Although the 3 cases began rather differently

the course, symptoms, & duration were very much the same

Duration in 1st Child 18 days.

" 2nd " " 22 " from onset of Laryngeal Stds.

3rd Child 22 " from onset of Measles.

In 4th child duration was 30 days & pneumonic stage was marked by extreme restlessness & irritability.

Prophylaxis.

Prophylactic measures would be very important point in this family. Most important consideration would be for Parents to remove to the country & submit to systematic course of treatment, otherwise I consider that the Phthisical family history is so decided that unless they remove out of town remedial measures would be of very little avail.

Fresh Air, nourishing diet, warm clothing, sea-bathing, Tonics. Cod, Liver oil &c would all be indicated, with quiet easy life &c

Case XI

"Tubercular Meningitis in a child — well marked remission of Symptoms — Death".

Annie King. aet 6 years. January 1881.

This child had been ailing for 8 or 10 days before I saw her on 15th January. Had been feverish & vomiting, but as she was subject to frequent attacks of biliousness, this was thought to be one of her usual attacks of Bile & little attention was paid to it at first.

When I saw her she was confined to bed, her face was flushed, & head very hot. Pulse 130, irregular. Temperature 102°. Has been vomiting pretty constantly for the last 3 or 4 days, & as vomited matter had contained a large quantity of biliary matter this was thought to be cause of child's illness. Everything she takes is rejected even cold water which she has a constant craving for.

Tongue moist & covered with yellow fur

Bowels very costive

Complains of headache, & feeling of giddiness when

head is lifted off the pillow.
Has complained once or twice of seeing double, on one occasion when her Mother was giving her a drink she said she saw 2 cups when there was only one.
Mother states that for the last fortnight, although the child had been out of sorts & not in her usual lively way, there was nothing very definite about her symptoms that made her fear anything serious. She didn't complain very much, but just hung about fireside listless, & not inclined for her food, she was feverish at night & inclined to be restless in her sleep, muttering & grinding teeth a good deal whenever she did sleep.
Up till a fortnight ago she had been in her usual good health, & there was no signs of any wasting or falling away in flesh. & Mother is firmly impressed with the idea that it is a disordered stomach from which child is suffering.

Family History.
Father living & healthy, age 32 years.
Mother living & in good health, age, 30 years, has enlarged glands in the neck with cicatrices. Was

subject to runnings in neck when a child.
1 brother died of Bronchitis when 10 months old.

I was inclined to think this would turn out a case of Enteric Fever: but as there was no Eruption, no Diarrhoea, nor tenderness in right-iliac fossa I reserved my diagnosis.

I advised hair to be shaved off & cold applications to be applied to head.
Hot poultices to be applied on stomach frequently.
Milk & Soda Water in small quantities frequently.
℞ Prescribed. ℞. Acidi. Nitro. Mur. dil.
Mist. Hyoscyam aa ℥ii/ss
Glycerini ℥iv
Aq ad ℥iii/. M.
Sig. ℥ii/ 3tr 4 hrly in water.
℞ ℞. Pulv Rhei gr. 12.
" Hydrarg c Cretæ gr. 6
" Sodæ Bicarb gr. 12. M.
f.l. Pulv — Div in pulv. x ii/.
Sig. One night & morning.

16th Vomiting everything. food & medicine, all

the ejecta tinged with bile, due to stress of vomiting.
head hot & very painful, face much flushed.
eyes red & watery.
has been very restless during the night.
Pulse 120 inequality in force of beats.
Temperature 102°
Tongue dry & covered with yellow fur, bowels moved once.
great thirst, belly much sunk, no tenderness
stopped all food & medicine,
to have half teaspoonful of Brandy in Soda Water
every 2 hours for 4 or 5 times. ice to suck.
poultices to be kept on abdomen.

14th "

Rested very badly during last night, a little delirious
at times, Mother states that early this morning
she had 2 attacks of internal convulsion lasting
for about ½ of an hour each time, convulsions
consisted in twitchings in muscles of face both sides,
& clenching of teeth, child was quite unconscious,
during my visit there is still slight twitching
of muscles of left eye.
She inclines to lie on her back, with eyelids half
closed, & does not want to be disturbed, &

Acid mixture prescribed on 15th ult stopped, &
on 17th one containing Potass Brom gr. 10. &
Potass Iodidi gr. 5. in Simple Syrup to be given
every 4 hours.

When she wakes up she complains of pain of head.
has only vomited twice since last night. Brandy
which was only given twice had been stopped.
Bowels not moved.
Pulse 96. intermittent.
Temperature 101°.
There is no cough, & examination of chest does not show
any indications of lung mischief.
As there are no symptoms positively indicative of
Enteric Fever today, & the prominent head
symptoms becoming more marked with tendency
to drowsiness, I determine to apply Fly Blister
to head over vertex.

9. p.m.

drowsy condition more marked than in forenoon,
face flushed, & eyes half closed.
slow quiet breathing
Blister which has not risen fully yet, does not
appear to cause her any annoyance
Although drowsy she answers questions slowly, she puts
out her tongue, which is very tremulous.
When asked if head is sore she puts up her
hand & rubs it.

Pupils dilated. vomiting ceased, & bowels moved once, (this is 2nd time since 15th)
Pulse 96. intermittent.
Temperature 101°.6.

18th

has had very restless night, started up frequently, screaming & frightened like, but when spoken to often a little she becomes quite sensible, & answers pretty correctly any questions, says her "head is sore"
Blister has acted well, & has had apparently a little effect on the drowsiness which is not just so deep today.
no vomiting, very peevish, & irritable refusing all food.
On making line with my finger nail over skin on chest "red line" is produced but as it takes considerable amount of pressure to elicit this I do not attach much importance to it as a diagnostic sign. omit Brom K Potassium &
Prescribed mixture containing 5 gr of Iodide of Potassium to be given every 4 hours in water.
Pulse 90. intermittent.
Temperature 100°.

18th 10. p. m. Since morning she has lapsed into drowsy condition again, lies on side with head drawn backwards, there is a good deal of moaning & rolling head at times.
drowsiness deeper than it has been yet, does not make any sign of recognition when spoken loudly to
pupils widely dilated & equal
Tongue moist & covered with white fur.
belly much sunk, no tenderness nor any rose spots to be discovered on careful examination.
Another Blister to be painted behind right ear.
19th
the 2nd Blister has risen very well, drowsy state noted yesterday still continues.
lies on her back sunk down in bed, with one hand constantly rubbing head, the right arm lies motionless by her side & fingers are firmly clenched
sensation & motion very much diminished in legs.
teeth are kept constantly grinding against each other,
& has not taken any milk since yesterday forenoon.
Pupils dilated equally & respond very slowly to light.
Head is very hot especially in occipital region, &
there is bright red spot on right cheek.

Pulse 80, intermittent.
Temperature 100°.

For the next 2 days I was confined to the house thro' indisposition & did not see my patient. Dr Jamieson saw her for me & I informed him that I considered she was suffering from "Hydrocephalus", & he told me afterwards that he was surprised when he called at the house to see my patient (after diagnosis I had given him) to find her sitting up in bed & eating a bit of bread & butter. All trace of drowsiness or stupor had completely disappeared, & she answered all questions correctly, the only thing she complained of was hunger, she wanted food!
Pulse 100 during these 2 days & the Temperature 99°.6
Dr Jamieson worked on case as one of Enteric Fever & so completely had the head symptoms disappeared during the 2 days that he saw her, that he

was inclined to think She would recover.

Owing to the favorable turn the people thought that child had taken during these 2 days they were very hopeful, & expressed the opinion that I might be mistaken in my diagnosis. They suggested that it was fever from which child was suffering, that she had now got the turn & was on the fair road for recovery.

The hopes of the parents were soon dispelled for when I called on the 22nd child was in state of coma much deeper than when I had seen her last, 3 days ago before.

Pulse 80 intermittent.

Temperature 99°.

pupils unequal, left contracted to a pin-point face much pinched, eyes sunk, skin puckered in circles round mouth & nose.

belly very much sunk, passing urine & motions in bed

23rd

Since last note has been gradually sinking, lies on side runs down in bed with thighs flexed on abdomen & rigid, breathing slow & irregular she has 3 or 4 slow respirations then a long interval

& then the slow respirations again.
Pulse 160. to 180
Temperature 99°.2.
Pupils still unequal.
Red spot on right cheek
She continued in this comatose condition till the 26th when she died quietly.
For ½ an hour before death there was slight spasmodic movements of right side of face.

Remarks. This case was noteworthy in that it presented very striking remission of Cerebral Symptoms even after considerable degree of Stupor had existed for some time, this amendment lasted for nearly 48 hours, & was so striking as to mislead Dr. Jamieson who saw her twice.
I must confess I was somewhat staggered when he told me he considered the case one of Enteric & that child was able to sit up in bed & take food.
I scarcely knew what to think at the time as I had felt confident in my diagnosis, & I was very much distressed when I thought I had

Name Annie King. Age 6 yrs. Disease Tubercular Meningitis. Admitted

January.

| Date | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day of Dis. | 8th | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| Time | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E |

Temperature (Fahrenheit.) 106° 105° 104° 103° 102° 101° 100° 99° Normal Temperat. of body 98° 97°

Temperature (Centigrade.) 42° 41° 40° 39° 38° 37° 36° 35°

Dead

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pulse. M E | 130 | 120 | 96 | 90 | 80 | 100 | 100 | 80 | 160 | 160 | 180 | |
| Resp. M E | | | | | | | | | | | | |
| Bowels. | Castor | Mor. | C | C | | | | | | | | |



A VERTICAL LINE MAY BE DRAWN AT THE END OF EACH WEEK OF DISEASE.
FOR NOTES OF CASE SEE BACK OF CHART.

Printed & Published by H. K. Lewis, 136, Gower Street, W.C.

(RIGDEN'S CLINICAL CHART.)

hers - Blistering Childs head when she was in reality suffering from Enteric Fever. However all my fears & reproaches were set at rest when I called & saw patient on the morning of the 22nd She was then in a condition of profound coma in last stage of Tubercular Meningitis with all the physiognomic appearances of terminal stage of that disease well marked. I explained to the Parents that it was not unfrequent to have an abatement of unfavourable signs a few hours a day or two before death in this disease. They appeared to be convinced that I was right, & accepted with quiet resignation my prognosis when I told them I considered case hopeless.

M. Aitkin quoted in Reynolds' System of Med^e refers to remission lasting for a day or two.

The long duration of the remission in this case was somewhat unusual, the only case that I have met with at all resembling it in that respect, was that of a girl age 10 years who died after an illness of 3 weeks from well marked Tubercular Meningitis, the duration in her case of the remission was about 10 hours, she was in state of complete coma, when remission set in, she became able to talk quite sensibly & could take food, but afterwards became comatose again & died in 2 days.

Dr West in "Diseases of Children" refers to cases of this nature

& mention that of a child who had been in state of profound coma for 2 days, she became quite sensible took food & drink, but after several hours she became worse & died —

It was because of the different diagnosis expressed by Dr A. Jamieson in regard to this case, & also because the patient was Sister to another patient whose case is reported towards end of this "Essay" (Robert King) that I have reported case in this paper. As this case of Annie King's illustrates very well the differences that may spring up as to diagnosis between Tubercular Meningitis & Typhoid Fever in children, I will refer to this point briefly here. As Dr Jamieson only saw patient on 2 occassions he only expressed his opinion in very general way — In the absence of Post-Mortem in the case I admit that there may be room for doubt as to its being a case of Tubercular Meningitis as I have headed it at beginning of my report, ~~first~~ of this I am quite sensible; but at same time I may state that all thro' course of my attendance, I had this question of Enteric

fever before my mind, as it struck me as being of that nature first time I saw it, & all thro' I was on the look out for this disease: but the general clinical features of case as a whole, its course, & mode of termination impressed me with the idea that it was actually a case of Tubercular Meningitis.
No doubt the onset & some of the symptoms present resembled very much those found in Enteric in children, but on the other hand it must be said that we occasionally find cases of Tubercular Meningitis beginning much in the same way as Typhoid, it being only when case has gone on for some time that Tubercular Meningitis is found to be the disease actually present.
Thus Rilliet & Barthez in their Book on "Diseases of Children" describe a form of Tubercular Meningitis as having a "debut typhoide"
From my experience of Children's diseases I am convinced that now & again we are much more likely to mistake a case of Tubercular Meningitis for Typhoid, than to mistake Typhoid for Tubercular Meningitis. And most writers refer to the fact that cases of Tubercular Meningitis

are occassionally sent into Hospitals as being cases of Fever.

Diagnosis as between certain mild cases of Typhoid & Tubercular Meningitis in children is matter of great importance & often a point of considerable difficulty

Rousseau in Clin Medicine Vol I. remarks "that in too many instances the deceptive nature of Tubercular Meningitis misleads men of the most consummate experience"

Dr West Diseases of Children. "confesses that it is not always easy to distinguish between mild cases of Typhoid & Tubercular Meningitis"

May have cases of Typhoid in Children where there is nothing but condition of "Malaise" & slight evening elevation of temperature, & in cases such as these where we have no diarrhoea, no rose-spots & it may be the "Tache Cerebrale" easily produced, it is a very difficult matter sometimes to decide whether a

Now case is one of Cerebral disease, or case of Typhoid with cerebral symptoms. & it is only when the case recovers & we look back on it & consider it as a whole that we have no difficulty in coming to conclusion that it was one of Typhoid Fever.

In any doubtful case must take it into our consideration as a whole, enquire carefully into Family History, & surroundings, see patient frequently & watch symptoms very narrowly as they arise.

In these doubtful cases many different points would require to be taken into account before we could arrive at diagnosis.

In Tubercular Meningitis Family History would be very important majority of the cases having Phthisical or Scrofulous Family History.

Pulse would assist diagnosis very much in Tubercular Meningitis it is almost invariably, slow, irregular or intermittent, very different from the full, frequent & regular pulse of Typhoid in all the cases nearly that I have met with of Tubercular Meningitis pulse has been very characteristic.

Constipation almost invariably present in Tubercular Meningitis very rarely have diarrhoea.

Temperature chart is of great assistance. In Tubercular Meningitis temperature presents very irregular variations, usually being

high at onset, & often marked by reduction during middle stage, & generally having it continuing high towards end of case. Although we may have the evening temperature high in Tubercular Meningitis, yet not unfrequently we find morning temperature highest. In marked contrast with the above we find in Typhoid slow gradual rise, with the characteristic evening exacerbation & morning remission.

Pain in right iliac fossa is a very important diagnostic point, the tenderness, gurgling & full abdomen being characteristic of Typhoid, but I refer especially to distinct tenderness or pressure in one or both iliac fossae especially in children at early stage, this symptom I have often found being quite marked before patient took to bed. It is advisable in eliciting it to begin palpation on left side & work round to right fossa, & the different degree of tenderness on right side is usually well marked.

Convulsions & Paralysis are generally present in T. Meningitis either at onset or more advanced

stage. Very rarely we find Convulsions present in Typhoid & the fugitive paralysis is very characteristic of Tubercular Meningitis.

In doubtful cases it is said that valuable assistance may be obtained from use of Ophthalmoscope. retinal changes being frequently present in Tubercular Meningitis & absent in Typhoid. I am sorry to say that my experience of use of this instrument in Tubercular Meningitis has not been very extensive, the difficulties standing in the way of examining eyes of young children who are usually very restless & very irritable, by ophthalmoscope are almost insurmountable. Dr. Sagge: page 591. states "that the Clinical Value of the Ophthalmoscopic changes in Optic discs is still somewhat doubtful: & that it is certain that a normal state of the retinae is no proof of absence of Tubercular Meningitis"

Dr. West. "Diseases of Children page. 95. says that all that at present we can safely expect from Ophthalmoscope is the confirmation of an opinion arrived at on other grounds than those with which it can furnish us"

With this patient Annie King, we had a case

with Scropulous family history, & presenting in regular sequence following symptoms; double vision, inequality & intermittency of pulse, Greyhound belly convulsive twitchings of facial muscles. paralysis sensation & motion in limbs inequality of pupils. & temperature chart not at all resembling what we find in Typhoid.
And for these reasons I feel as certain as it is possible to be under the circumstances that case was one of Tuberculous Meningitis.
The pulse was slow & intermittent at beginning of comatose stage, this is not the usual condition, from beginning of comatose stage to end of case pulse usually becomes very rapid & small.
All this pulse was slow at beginning of Comatose stage it became very rapid on the 23rd & continued high till she died on the 26th

"Tubercular Meningitis - following Measles & Bronchitis - in a child." Reared on the Bottle - with an artificial Food.
Terminating in Death"

Agnes Cunningham aet 13 Months. August 1882.

In May this child had Measles & Bronchitis, & was very ill for about a fortnight, & only recovered from the Bronchitis very slowly: I had stopped attending child & did not see her again till beginning of July, when I was requested to examine her as she did not seem to be well & had never appeared to get over the attack of Measles thoroughly: body was very much emaciated & face spent.

Parents were under impression that it was "teething" that was keeping child from thriving, she has only got 2 lower incisors as yet, mucous membrane over upper incisors being red & swollen.

Although never very plump or robust child, she had always enjoyed fair health, with the exception of slight attack of Bronchitis when about 6 months old & the Measles & Bronchitis in May referred to above

Family History Father living age 27 years healthy
Mother living age 25 years healthy.
This is their first child, & there is no family
history of Scrofula or Tubercular disease.

Patient was been reared exclusively by hand
the Mother never having had any Breast milk.
at first she had been fed with Cow's milk
but this was thought not to do with Stomach,
& Condensed milk was substituted but with no better
result, as she had vomited more or less all the time
she was fed on it.
Savory Moore's Infants Food was next tried, & as
this food appeared to suit her stomach, it became
Childs sole food, she appeared to thrive on it,
but flesh on her limbs never became very firm.

This food was given by the bottle
made entirely with water, & she had no
milk in any form whatever.
When she came under my care again in the
beginning of July, I was much struck with
her worn & emaciated appearance, face was very
pale & eyes sunk, & the expression of the
face at this time suggested very strongly

to my mind the idea of Cerebral mischief. So much was I impressed with this idea from Childs' General appearance that I hinted my opinion to Father that Child would probably die from "Hydrocephalus"

There was also present a short dry cough, which Parents said had troubled her for some time, & they had been told that this cough was due to teething, & this was their reason for not seeing about Medical advice for Child sooner

They were firmly impressed with the popular notion that the cough & wasting of Child was due to the teething, & it was only when they saw Child get so very low & no appearance of teeth cutting the gums that they again sent for me, this being their first Child ignorance of Parents was to certain extent excusable.

Cough has been going on more or less since she had the Measles, on Examining Chest there is nothing in Lungs to indicate any pulmonary disease such as would affect childs health to the extent to which it is now reduced, There is no dullness

to be detected over any part of chest anteriorly or posteriorly & only a few sibilant rales tobe heard on auscultation principally on posterior aspect of chest.

Pulse 130 irregular

Temperature 100°. 6.

Tongue moist & covered with slight yellow fur.

bowels very irregular for some time back, sometimes they were costive for several days together, then for several days they would be moved 2 or 3 times a day. Stools are usually of dark clay colour, with very offensive smell.

Mucous Membrane of upper incisors red & swollen. I lanced it freely.

Head hot with clammy sweat on forehead. anti. fontanelle prominent & pulsating.

Has been very restless & irritable since she had the Measles, & sleeps very badly at night especially.

& the Mother remarks that she always looks very much worse in the morning, & that towards evening she gets heated up a little & the cheeks flush.

As she was being fed exclusively on Savory & Moore's Infants Food I advised that it should

be made with Milk equal parts. & to be fed frequently with small quantities.

To have 5 drops Brandy in water with food every 4 hours.

Prescribed. ℞ Potass Brom gr. 80.
Tinct Cinchonae ℥ ij
" Hyoscyam ℥ ij
Syr. Scillae ℥ iv
Aq ad ℥ ij. M.
Sig- ℥ j every 4 hours in water.

℞
Pulv. Rhei gr. 12.
" Hydrarg c Creta
" Sodae Bicarb aa gr. 6 M.
ft Pulv. et div in pulv. 12.
Sig- One night & morning.

9th July. Has rested better since last note. the addition of the milk to food does not do with the stomach as she has been vomiting a good deal since it was added.
Mellins Infants Food to be given instead of the Savory & Moores food. Brandy & Milk to be continued

Bowels not moved for 2 days. belly is soft & flattened.
Head still hot & evidently painful as she rolls it a good deal from side to side on the pillow. & wakes up now & again with start or scream when she does sleep for a short time
Pulse 140. unequal in force & duration of beat.
Temperature 100°.

14th

Since last note there has been almost persistent vomiting, everything, food & medicine is rejected. there is also very distressing retching when no drink has been taken & stomach is empty.

Restlessness & crying has been much worse, & has scarcely slept any for some days. during last 2 nights she had very bad screaming fits, & Mother insists that she must be suffering great pain in head, as she is constantly rolling it & putting up hands & rubbing ears.
Bowels only moved once since note of 9th.
Eyes are clear & bright, pupils equally dilated.
There is constant grinding of teeth, & movements of mouth & lips as if she was swallowing something.
Cheeks flushed. Tache Cerebrale can be

produced readily on chest.
Pulse 120. irregular.
Temperature 100°

19th

Pulse today is 80. soft & intermittent.
Temperature 100°.4.
Tongue covered with white fur, bowels not moved.
Vomiting almost ceased.
Head still hot, with prominent pulsating fontanelle.
Still very restless & crying a good deal, rolling of head still almost constantly
Face is now very much pinched, & eyes sunk, & the forehead is always wet with cold clammy sweat.
On account of the extreme irritability the dose of the Bromide of Potassium in Mixture is increased to 10. gn. every 4 hours. to try & sooth her & induce sleep.

18th

Vomiting ceased entirely, bowels moved. & takes all food very greedily.
the 2 teeth that I lanced some days ago are now quite thro' the gums.
Pulse 80. intermittent. Temperature 100°

Since the Bromide was increased yesterday, she has been dozing a good deal, rested much quieter during the night evidently under the influence of the drug. Bromide is omitted from the mixture today & 5 grs of Iodide of Potassium substituted instead Careful examination of chest again today does not give any indication of Lung mischief, cough is scarcely troublesome at all now, & the breathing is rather slower than natural in a child this age, when dozing I counted respirations as low as 8 per minute.

19th

Was been in state of stupor since last night, 5 & 6 times during course of last night she started up with loud scream, Mother described it as being a cry as of one in pain but said she was quite unconscious at the time.

Pupils unequal left contracted, & with slight degree of convergent squint.

right arm lies motionless by her side, left is constantly wandering over bedclothes, or putting hand to head as she still takes food slowly & be well fed.

Fly Blister to be painted behind right ear.

20th On account of the uneasy state of child last night blister was not acted, the way she kept rubbing that side of head against pillow prevented blister from acting, & the skin over the part that quite red was not vesicated.

Although Child is in a very drowsy condition, still she moans & rolls head a good deal at times, quite mechanically

Pupils still unequal, & respond to light very slowly.

She lies on her side with lower limbs which are quite rigid flexed on abdomen

Pulse still slow, & intermittent

Temperature 99° 8.

She continued in this state of Stupor till the 22nd when she had a convulsive fit affecting left side of body, & continued in this condition for half an hour when the convulsion became general, the spasmodic action of Muscles of face being very violent & causing frightful contortions, the child was quite unconscious during the fit. After Convulsion became general it passed off rapidly, & left her in comatose condition.

24th " Stupor still continues tho' not apparently so deep as 2 days ago. moans a little now & again especially if head is moved.
Pulse 160. thready & easily compressed.
Temperature 99°.
not swallowing anything.
slight twitching movements of muscles of left eye.
squint left eye more marked today.
Urine & faeces passed in bed.
Abdominal wall very much sunk.
Body extremely emaciated.
Breathing very slow. & irregular for last 2 or 3 days.
Stupor gradually became deeper & she died comatose on the morning of the 25th

Remarks.

This is a case presenting well marked symptoms of Tubercular Meningitis, occurring in the first child of strong healthy parents where there is no history of Scrofulous or Tubercular disease to be traced. This in my experience of a number of cases of Tubercular Meningitis is not very frequent for the majority of the cases I have seen occurred in families

where evidence of Scrofula or Tubercle were quite readily detected.

Although it is a well known & recognised fact that Tubercular Meningitis occurs mostly in families where there is distinct history of Phthisis or Scrofula in one of its various manifestations; still there can be no doubt this disease does sometimes occur in families where no Scrofulous or Phthisical tendency can be detected; the dyscrasia being acquired & brought about as in the present case by low condition of the vital power due to defective nutrition; just as we may have some of the other manifestations of Tubercle or Scrofula induced by defective nutrition, bad air. bad hygienic surroundings &c.

Dr Edwards Crisp in an elaborate paper read before the "St. Andrews Medical Graduates Association" (Med Press & Circular Dec 25th 1867) "Tubercle in Man & Lower Animals" states as one of his Conclusions "That tubercle may be produced in man by vitiated atmosphere, bad diet, change of temperature & other unnatural conditions &c."

Professor Bennett of Edinburgh holds the view that Tubercle is repudiated from the blood, depraved

by defective nutrition.

Whether we consider the views held ~~as~~ by Shaw & other observers as being the cause or merely first the predisposing cause of Tubercle, there can be no doubt that where there conditions giving rise to defective nutrition in any given case exist very little is necessary in the way of true exciting cause to set agoing the tubercular dyscrasia.

In the present instance there is a clear history of defective nutrition extending over the whole period of child's life, at first the Mother was unable to suckle child as she had no milk, various substitutes were tried Cows Milk, Condensed Milk &c but these giving rise to persistent vomiting were stopped. Savory & Moors Infants Food was then tried & as it did not cause vomiting it became child's sole food up till last illness. it was given by means of bottle & without addition of Milk. Milk was frequently tried with it but always caused vomiting & had to be discontinued

This Infants food "Savory & Moore's" without the addition of Milk is I consider by itself without addition of Milk deficient

in elements necessary for growth of child. As I have frequently seen cases where children had been reared exclusively on this food till ages of 10. 12. or 15 months, die off rapidly from slight ailments, which other infants reared on Cow's milk or at the Breast readily recover from. I have noticed repeatedly that children on this food are soft in the skin, & flesh very flabby.

Reared as this child was on the bottle & on an imperfect food there can be no doubt that this predisposed child to the Tubercular Dyscrasia by defective nutrition induced. & the attacks of Measles & Bronchitis from which she suffered immediately preceding last illness would no doubt further reduce vital powers, & predispose her still more to the tubercular disease, & quite probably may have had some share in exciting the Cerebral lesion, at any rate she never fairly rallied from the weak state of body left by the Measles & Bronchitis. In this low state of health to which she was reduced, the irritation of teething would be an important factor

in exciting the cerebral mischief (2 teeth made their appearance thro' the gums 5th or 6th day from onset of decided head symptoms.

In strong healthy child the process of cutting teeth is usually attended with slight temporary disturbance of childs health, & in many cases there is no appreciable change in usual condition.

Still there can be no doubt that the irritation of teething in child whose vital powers are reduced to very low ebb as in present case, is fraught attended with the gravest consequences.

And I consider it judicious on account of the insidious nature of the onset of Tuberculous Meningitis in many cases not to treat too lightly this question of teething, but to examine gums carefully as in this case & scarify if there is good indication for doing so. And make it a rule always to listen attentively to opinions parents have to express on this subject of teething, & in that way (on account of the hold this subject has on the popular mind, teething being always uppermost in the minds of Parents & getting blamed for every little illness that infants are so frequently liable to)

Secure their confidence & are likelier to see patient all the sooner again - Whereas if you contradict them in their opinions about letting too dogmatically, very likely they may think more of their own opinions on the subject & you may not see patient in a hurry again, & if the case does turn out to be one of Tubercular Meningitis the disease is well advanced & cure absolutely hopeless by time you see patient again. & you are probably blamed for unskilfulness

As compared with Tubercular Meningitis occurring in a child where there is clear Family History of Phthisis & Scrofula this case corresponds very closely both in regard to Symptoms & course

Premonitory Stage was marked by the usual irritability & restlessness.

Constipation was not a marked feature,

bowels are noted as irregular.

sleeplessness was prominent Symptom, &

Jactitation Cerebrale was elicited early.

Pulse on 3rd day from onset of decided head Symptoms was slow & intermittent, & retained this character for some days.

Stupor set in about Midway between the

onset of Head symptoms & death & gradually deepened but coma never became very profound. Inequality of pupils. & squint were also present. Paralysis of right arm & leg soon well marked. retraction of head & contraction of Muscles of Back never so striking as to be noted.
2 days before death there was very severe convulsive seizure at first partial but afterwards becoming general.

Treatment did not modify symptoms very much. Bromide of Potassium was thought to cause the stupor noted on 18th, but this was not so likely to be due to advance of the disease.
Blister did not act for reason stated.

Duration of Case from onset of distinct Head symptoms (9th to 25th) 16 days this is shorter than usual in Tubercular Meningitis, but onset may have been earlier than date mentioned, the symptoms creeping on very insidiously at first, being masked by the irritability of teething.

In children reared on Bottle as this child was we very often have vomiting present more or less as an every day occurrence. & it is as a rule neglected by parents. I have known children brought up on the Bottle & in whom Chronic vomiting (to extent of 2 or 3 times a day or even after every drink) persisted during all the time child was reared on Bottle, say for periods of 10 12 or 15 months.

The vomiting in these cases is due to

(1) bad construction of feeding bottle now so much in use at present time.

(2) want of cleanliness owing to defects fittings of bottle.

(3) Causing fermentation of milk. &

(4) overloading of Childs stomach, child is constantly drinking from habit.

the very handiness of bottle which is its bad feature allowing teat to be crammed into childs mouth every time it cries, & it is allowed to drink as much as it likes. Which is detrimental to health owing to the imperfect digestion induced by overloaded stomach.

This vomiting is usually neglected by parents, which I consider very far wrong, as there can be no doubt that Chronic vomiting extending over a lengthened period in infant, when Brain is in process of growth must be injurious to integrity of that organ.

The irritability of Stomach which causes the vomiting, & also the constant, irritation & overloaded condition of Cerebral blood-vessels which this vomiting must induce, are in many cases potent factors in determination of Brain diseases in children. And for these reasons it is not difficult to understand how that a child brought up by hand feeding & subject to Chronic vomiting, should if it happen to take Measles or Bronchitis, or other infantile ailment, become affected as in present case with Tubercular Meningitis.

This view I am disposed to adopt after reading a Paper by late Prof. Alison of Edinburgh (reported in Trans Medico Chir Socy 1824) "Observations on Pathology of Scrofulous disease"

In that Paper Professor Alison reports a number of cases of Tubercular & Scrofulous disease of Brain & Lungs. tubercles being formed in both Organs.

& he states as one of his conclusions
"that Inflammation Acute, or Chronic, &
Febrile action, however produced, becomes
in certain constitutions the occasion of
the development of tubercles"

Now in this case of Cunningham's
I consider that the febrile action of
Measles & Bronchitis, supervening on
defective nutrition was occasion of
the development of the tubercular meningitis.

Regarding Prof Aitken's view of the Causation
of Tuberculosis, & the very decided opinion
held by late Dr Fagge on same subject
there appears to me to be little if any
difference
in Vol I of Dr. Fagge's very admirable work
on the Practice of Medicine, "Art Tubercle"
he expresses the opinion which he holds that
"Tuberculosis is a modification of the
Inflammatory Process"
& states his reasons for this opinion very
clearly & forcibly.

Tubercular Meningitis in Child of 18 months.
Duration about 3 weeks. — Recovery —
Death 18 months after wards from Convulsions.

Jeannie Cook- age 18 months May 1883.

I saw this child for the first time one day about end of April. She had had a "Convulsion fit" as the people called it, that morning. she & had been quite unconscious & the whole body "panels stated" worked very severely in the "fit" muscles of face especially were very much affected. altogether it had lasted for about 20 minutes.

When I saw her she was very dull & drowsy, but no spasmodic movements of Muscles. The Mother states that she has not been thriving for some time, she could see nothing special the matter, but she was just slowly pining away, & did not thrive as she thought she ought to do, considering the food she took. was still on the Breast delicate health & teething being reasons for her not being weaned. Till she was 6 months old had been a plump healthy child but about this time she was vaccinated, & began to cut teeth, & her delicate health is dated

from this time, as she never appeared to thrive after the vaccination: Mother blames the vaccination as being the cause of her ill health as ever since that time she has been puny & delicate.

Had 2 slight attacks of Bronchitis the one at 8 & the other when she was 14 months old, she recovered from these attacks very slowly under treatment; but cough never completely left her as since last attack she has been troubled with short dry cough.

She looks very poorly, face is pale & worn, & has oldish expression, body & limbs are emaciated, the muscles of arms & legs soft & flabby.

Takes her food (Breast & Boiled Bread & Milk) very well, but for last 2 or 3 days she has vomited a little more than her usual

Bowels have been costive for several days, usually they were very irregular, stools being of bad colour, & offensive smell.

Vomiting not thought much about as she has been vomiting more or less every day for some months back. She is very fractious & ill to nurse, altho' she has always been a difficult child to nurse, the irritability & restlessness has been very marked & distressing for the last 8 or 10 days

Tongue moist & covered with slight yellow fur. 6 teeth cut. gums not inflamed or swollen, belly flattened & soft.
Head hot with cold clammy sweat over forehead.
Eyes pink dull heavy, pupils equal
Pulse 140 irregular, soft.
Temperature 101°.6.
has not slept any during last 2 or 3 nights, but sleeps a little now & again during day
breathing a little quick. no dulness to be detected over any part of lungs. & auscultation does not reveal anything further than a few sibilant rales over anti surface of lungs

Family History:

Father alive & healthy.
Mother living age 34 years, suffering from Phthisis Pulmonalis of which she died subsequently.
2 Brothers living & healthy ages 7 & 9. yrs.
1 Brother died at age of 3 years from Hydrocephalus.
1 Sister living in delicate health age 10 years.
2 Maternal Aunts died from Phthisis Pulmonalis.

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I advised that child should be weaned completely at once, & that she should be fed on Milk & Lime Water

& "Nestle's Milk Food". To be given in small quantities frequently.

Prescribed following Medicines.

℞ Pulv. Hydrarg ℅ Cretae gn. 12
" Rhei
" Sodae Bicarb aa gn. 6 M

ft pulv. et div in pulv. X II.

Sig. one night & morning.

℞ Potassii Brom ℥ij
Spt. Ammon Arom
Mist Card Co aa ℥ij
Glycerinis ℥III
Aq ad ℥II. M.

Sig. ℥j every 5 or 6 hours in water.

Whole body to be sponged over with hot water & mustard night & morning. Linseed Meal Mustard poultice to be applied over stomach for an hour.

4th May. (6 days since I saw her last)

Vomiting much worse today, nearly everything she takes is rejected a few minutes after she swallows it. this has been going on for last 3 days.

Bowels only moved once in 4 days.

does not sleep any, moaning & crying constantly night & day, prefers to lie in Mothers lap with her head thrown back over the knee.

Pulse 140, irregular. Temperature 102°.

Head very hot, eyes dull & hazy, pupils dilated & equal.

As symptoms point to grave Cerebral disease, I recommend head to be shaved, & cold lotions to be applied assiduously.

To have Enema of Soap & water.

Milk & Sodas water to be given in teaspoonfuls frequently.

Dose of Potassii Brom in mixture to be increased to 10. grs every 4 hours.

5th 9. pm. at my visit tonight child is lying in crib moaning piteously, & rolling head slowly from side to side. hands wander up to head quite mechanically.

eyelids are only half shut, & when they are touched to put them, or head is moved she cries, & tries to bore it back into pillow or draw it away.

Bowels have been moved with the injection.

Vomiting as bad as ever, all food & medicine has now been stopped by the Mother, who says, that it just aggravates the childs suffering to persist in giving either

food or Medicine as it is just vomited, so she has stopped giving any thing

Head very hot posteriorly, Ant. Fontanelle prominent & pulsating.

Pulse 120 irregular & unequal in force & beat.

Temperature 102°.

On the whole she is not so restless or crying so much as she was yesterday.

Cold applications to be applied on occiput frequently.

Potass Bromide Mixture to be persevered with.

6th was very restless again last night.

the rolling of head & moaning never ceases,

2 or 3 times during last night, she let out a sharp, loud cry which alarmed the Mother very much. Mother thought she was suffering pain, & says that this cry was quite different from what she used to have when she used to awaken up screaming & frightened like before she took this illness.

constant movements of hands to head & boring of fingers into Ears.

Vomiting much less today, food & Medicine retained bowels moved.

Pulse 120 intermittent Temperature 101°.

Cough very slight, & breathing is very slow & quiet.
Chest examined for signs of Lung disease to be detected.
Prescribed following Mixture.

℞ Potass Brom 3ij
" Iodidi gr. 48
Glycerinæ 3ii
Aq ad 3iii M.

Sig. 3j every 4 hours in water.

7th" Still restless & moans a good deal now & again as if suffering pain.
"Cri Hydrocephalic" present & quite distinctive. I heard it twice during my visit today. Mother states that it has occurred several times during night.
During my visit I noticed that before "cri" came on the low moaning ceased for a little, eyelids being closed & brows wrinkled, hands moving upwards at same time then she would give the "sharp loud cry" so characteristic of Tubercular Meningitis.
Altho' it is positively stated in Books & by "Trousseau" & other eminent Authorities that the "Cri" of Tubercular Meningitis is not due to pain, I must state that in this case, & one or 2 others that I have met with the cri conveyed to my

mind the idea of suffering. On both occasions that I heard it in this case the head was being moved, one of the times the child was being lifted out of the crib, & on the other the position was being changed on Mother's knee. The expression of child's face also impressed me with idea that suffering was factor in causation of "cri" in this case

Has only vomited twice since yesterday

Tongue moist covered with white fur.

bowels not moved.

Pulse 120 intermittent

Temperature 101°.4.

slight inequality of pupils.

Potass Brom & Iod Mixture to be continued.

9th

Since last note vomiting ceased entirely.

bowels moved this morning. taking food well.

very dull & languid, irritability & restlessness has quite disappeared, lying in crib she moans a very little at times, takes no notice of anyone, & shows no desire to be lifted or nursed.

"Cri H" still present but not so frequent now, & it is to be noted that it has usually been most frequent at night

abdominal wall very much retracted.
Head not so hot as a few days ago, cheeks flushed, & eyes very much sunk.
Jactic cerebrale persists for considerable time on trunk.
Pulse 100 intermittent
Temperature 101°.2

10th " 9. pm.

Has been restless & uneasy again today crying a good deal, & rolling head very much.
"Cri H" only heard once or twice today.
With the restlessness there was almost constant movements of arms & legs, arms were rigid & kept extended, with the thumbs pressed into palms & palms turned outwards.

Since 7 o'c tonight she has been quieter, & is now in rather drowsy condition, lies on her side with head drawn backwards, & spine very much arched, left arm rigid keeps it moving about over bedclothes, eyes half closed, & pupils unequal,
Pulse 80 irregular & intermittent
Temperature 101°.2.

Potassii Bromidi omitted from Medicine, & to have 5 gn of Potassii Iodidi in water every 5 or 6 hours. & 1 gr. Pulv. Hydrag & Calcar. night & morning

11th child in very drowsy condition this forenoon.
lies with eyes firmly closed, & when she does open them
which is rare she stares straight in front of her, & takes
no notice of anything, pupils are dilated.
Rigid condition of muscles noted yesterday ~~are~~ more
marked today, thumb flexed over palm, & fingers
firmly flexed on thumb.
Takes food readily, no vomiting, & bowels moved.
Pulse 80, still intermittent.
Temperature 100°.
Hy Blister to be painted behind right ear,
Potassii Iod: mixture, & grey powders to be continued.
13th
Blister has acted well, but child showed no signs of
being irritated by it, no moaning or any indication
of pain, Stupor gradually deepening.
rigidity of Muscles of arms less today.
Tickling soles of feet, shows that sensation is much
diminished in right foot, left responds rather more,
Head hot. Art. Temporalis still prominent & pulsating.
Eyes pink & injected, left pupil contracted as
compared with right & ~~corresponds~~ very feebly to light.
Pulse 100 intermittent Temperature 100°.

(Baby Cook cont'd)

another Blister 4×4 to be painted on left side of head.

13th "

Child in state of Coma, has not fretted any with blister which has risen well

Food & Medicine has been stopped as she did not appear to swallow very well.

Head still very hot, especially over occiput.

pupils unequal

Red spot on right cheek, & Jacks Cuticle easily produced by finger nail on any part of trunk or face but does not persist very long.

today on tickling or pinching left foot or leg it elicits no response, but very slight attempts to draw up the right leg are made

Bowels not moved since the 11th "

passing water in bed

Pulse & Temperature same as yesterday.

14th " To certain extent

Moaning & rolling of head during course of last night returned — & she is inclined to be rather restless this forenoon. Stupor not so deep as yesterday & attempts are made at swallowing.

Child's body is now very much emaciated, &

abdominal wall very much retracted.
Face much pinched, & features very sharp.
Pulse 170, intermittent
Temperature 99°.6.
Another Blister to be painted over Vertex.
Medicine as before to be continued.
15th "
Blister put on head yesterday has acted well, & caused a good deal of irritation as shewn by moaning & crying of the child.
Arms & legs are in almost constant motion, rigidity has entirely disappeared, & sensation is equal in both legs.
stupor evidently passing off, considerable indications of pain present as evidenced by crying & restless state suffering is evidently due to blistered surfaces on head which are still open & discharging,
takes all food & Medicine greedily.
Pulse 130. slight irregularity.
Temperature 100°
Pupils about equal, very slight squint of left eye.
To have a purgative powder, & Potassii Iodidi Mixture to be continued; & to be well fed with

milk, & "Mellin's Infants Food"

16th " This forenoon there was slight twitchings of muscles of left side of face, lasting for nearly half an hour after which passed off gradually child was quite conscious, opened her eyes & looked about & appeared to recognise her Mother
Tho' very dull & low she appears to be quite recovered from state of stupor, & keeps eyes on Mother trying to follow her movements
breathing slow & quiet, no cough & any consequence
Pulse 140. soft & steady.
Temperature 99°.6

During the next 4 or 5 days, she was very dull & languid, & inclined to lie in cradle, & slept calmly for 2 or 3 hours at a time, no tendency to return of the stupor
pulse during this time kept about 140. soft & a little tendency to irregularity.
took food well, & bowels were kept open with powders. She continued very weak, & the emaciation was very noticeable, altho' she took food well, recovery was very tedious, &

Baby Cook's Case

| | | Pulse. | | Temperature. | |
|---|---|---|---|---|---|
| | | M. | E. | M | E. |
| 4th or 5th day. | 28th April | 140. | | 107°.6. | |
| | 4th May. | 140. | | 102°. | |
| | 5th " | | 120 | | 102° |
| | 6th " | 120 | | 101° | |
| | 7th " | 120 | | 101°.4 | |
| | 9th " | 100 | | 101°.2 | |
| | 10th " | | 80 | | 101°.2 |
| | 11th " | 80 | | 100°. | |
| | 12th " | 100 | | 100°. | |
| | 13th " | 100 | | 100°. | |
| | 14th " | 120 | | 99°.6. | |
| | 15th " | 130 | | 100 | |
| | 16th " | 140 | | 99°.6. | |

From 16th. stupor gradually passed off. & child made slow recovy. — Died 18 months after in Convulsions.

She always looked worn & spent. She did not show any signs of growth or putting on flesh for a long time.

She never became very strong, was always thin & very soft, some time after this illness she took a very severe cough which continued as long as she lived. She had a "fit of Convulsions" in January 1885, she was quite unconscious, & convulsive movements were general, & lasted for fully an hour when she "died in the fit"

As the Mother died from Phthisis Pulmonalis a few Months after above illness of Child she was put out to Nurse & I think was not well-cared for. The people who nursed her blamed the teething for convulsions that caused her death.

(It would have been very interesting to have obtained Post Mortem in this case, but Father would not consent to this)

Remarks on Baby Cooks case.

The Phthisical Family History in this case, (Mother died of Phthisis a few months after this illness that child had) along with careful watching of symptoms, & general features of the case as a whole left no doubt on my mind at to the Tubercular nature of the Meningitis. I had the child under observation, but not under treatment subsequent to this illness, & the puny wasted appearance of child with persistent cough confirmed me in opinion as to diagnosis I had formed, her ultimate death 18 months after the illness, from Convulsions is also I think in favour of opinion I have expressed. During course of illness the symptoms were quite characteristic & distinctive of pronounced Tubercular Meningitis in an Infant.

As usual first thing noticed by the Parents was the wasting & failing health, this being blamed on Vaccination, but

were I have no doubt due to the defective nutrition induced by child being still on the Breast although 18 mons old.

During first few days of my attendance the Vomiting, constipation, & restlessness were striking symptoms & very suggestive.

Pulse at early stage was irregular & unequal.

"Hydrocephalic Cri" was an early symptom very well marked, was present on 3rd day of my attendance & continued for a number of days. This being rather earlier than usual in my observations on this symptom

Pupils during first week were unequal, & at advanced stage there was squinting which is a very common sign in Tubercular Meningitis in Children

Rigidity of limbs & Spine which are very frequent symptoms in Children were present at end of 1st week, & about same time also pulse became intermittent.

Stage of insensibility denoted by stupor & coma was well marked lasting nearly 5 days, & passed off gradually, & just at termination of this stage there was an attack of Spasmodic twitchings of one side of face, this it is to be noted was

only thing approaching convulsions during the whole course of the illness, & it is also noteworthy that the passing away of the spasmodic twitchings of facial muscles was almost simultaneous with complete disappearance of the coma, as after this she became quite conscious.

The treatment adopted was that which I have now come to follow out in cases of Tubercular Meningitis, or even in any suspected cases; modified to certain extent of course to suit age & the indications of each individual case. Principal drug at early stage was Potass Brom to soothe irritation & Alterative powder to act on the Alimentary Canal — All this the illness careful attention to be given to feeding. Blisters were used at onset of stage of insensibility, & repeated 3 times.

(Treatment of Tubercular Meningitis referred to in Remarks Simplex Case page 349)

Diagnosis of Tubercular Meningitis in Infants.

Cases such as this one of Baby Cook's are of frequent occurrence & often cause considerable anxiety in regard to diagnosis on account of the great resemblance Tubercular Meningitis often bears to other diseases in Infants.
In Practice the diseases which I have found most to resemble Tubercular Meningitis in children up to 2 or 3 years of age are.

(1) Pneumonia.
(2) Hydrocephaloid Disease.
(3) Mucous Disease of Alimentary Canal.
(4) Cerebral Congestion.
(5) Simple Acute Meningitis (Basal).
(6) Gastric Catarrh.

With Regard to Pneumonia. Lobar pneumonia or pneumonia of Apex occurs occasionally in infants, & not unfrequently simulates cerebral disease, & we ought to make it a routine practice to examine chest carefully & regularly in all these cases where there is slightest doubt of diagnosis, for I have no hesitation in thinking that many cases set down as deaths or recoveries from Tubercular Meningitis in young children, are really cases of latent Pneumonia. Cough may be very slight, frequent respirations may be overlooked, not noticed either by attendants or Doctor

in Pneumonia bowels are not so constipated, nor is vomiting so frequent or urgent. The variations from ordinary course of Pneumonia in older children may be considerable, yet case is such that on careful examination ought to attract attention of careful Physician as case of Pneumonia.

Hydrocephaloid disease or Spurious Hydrocephalus. This is a disease in which it is of the most vital importance not to mistake for Tubercular Meningitis. It may be a sequela of many diseases, especially among the poorer classes in towns, & if its true nature is not recognised early & properly treated, the child dies from exhaustion.

This disease differs from Tubercular Meningitis in that it is not inflammatory in its origin, but is due to condition of debility & exhaustion usually following some other disease as diarrhoea, or some brain or system as excessive teething &c.

Dr Marshall Hall who was the first to point out the nature of this condition, divides it into 2 stages, which correspond

almost exactly to the first 2 stages of Tubercular Meningitis
(1) Irritability (2) Stupor.
In spurious hydrocephalus the most important diagnostic
signs are the sunken fontanelle, & pallor & coldness
of the face. We will almost certainly be able to arrive
at correct diagnosis if we study carefully the previous
history of child & Family History: enquire carefully
if child has had diarrhoea, & appearance of stools, & if
there has been much vomiting, bowels are usually loose
& flatulent stools offensive. Child is probably starving
for want of nourishment.
Ascertain also how, when & on what child is fed, or
if weaned lately, & any loss of flesh, this disease not
uncommon after weaning. May also be due to
debility left after vigorous treatment of some other
disease. Such considerations will all afford
valuable aid in diagnosis, & will be most important
indications as to treatment.
Mucous Disease consists essentially in an increased
secretion of mucous from whole internal surface of the
alimentary canal, by its mechanical action this
mucous interferes with absorption & nutrition to such
an extent that it often gives rise to suspicion of Tubercle

This mucous disease in children not unfrequent &
It resembles Tuberculer Meningitis in that child
becomes wasted, very irritable, grows pale, dull
& languid, & ceases to take any interest in
anything. Bowels are usually costive, & may
have nervous symptoms such as squinting,
& there is usually sleeplessness.
Diagnosed readily by the slimy glazed tongue
& temperature which is little above the normal,
& rapidly amenable to appropriate treatment.
Dr Eustace Smith "Wasting Diseases of Children"
refers to resemblance children with this disease
bear to Tubercular diseases.
In connection with this disease. What is popularly
known as "Worm Fever" may be referred to here
this is a condition which is caused by the
accumulation of Worms in Rectum of a child
suffering from Mucous or other disease, which
gives rise to indefinite Cerebral Symptoms
which speedily subsides on appropriate treatment
for the removal of worms, & giving healthy
tone to the bowels.
Cerebral Congestion. that may be present
at outset or accompany the Exanthemata

may be confounded with Tubercular Meningitis. diagnosis would be settled by the appearance of the rash, or other symptoms characteristic of the particular exanthem.

M. Barrier has applied the term Pseudo-Meningitis to those cases presenting vagal Cerebral symptoms, such as we find in Pneumonia of children, and at onset of exanthemata.

Simple Acute Meningitis. is Tubercular Meningitis minus the tubercular element, the early stage of both diseases being identical. Consideration of Family History is necessary to assist diagnosis. If we trust to symptoms alone in early stage it is almost impossible to distinguish them, & it is here that great value of careful study of Aetiology & Family History comes to our assistance.

Simple Acute Meningitis in Children is comparatively rare disease, the few cases I have seen have been very Acute running very rapid course to fatal issue (2 to 3 days) In only one case page 509 have I been really positive of my diagnosis

M. Gillet draws elaborate distinctions between these 2 diseases, & formulates table contrasting them symptoms & course (See "Meigs & Pepper" Dis of Children) but from what I have seen of them they are

almost indistinguishable in their early stages, I have watched cases & it has only been after the development of the characteristic symptoms that belong to Tubercular Meningitis, that I have been able to come to definite conclusions as regards diagnosis.

Gastric Catarrh in infants accompanied by Vomiting, constipation, great irritability &c may sometimes simulate onset of Cerebral disease but we have Family History to assist us, & by judicious treatment personnel in the most prominent symptoms soon subside, & child quickly returns to usual health & spirits, this is not so in Tubercular Meningitis where the cerebral symptoms become more marked & new ones develop, & do not yield under simple treatment.

Persistence of Any symptoms indicative of Cerebral disease must be regarded as of great importance, & Case must be narrowly watched, mere persistence of itself being very suspicious. Must always suspect the import of vague febrile attacks in children, coming on without

adequate cause, lasting an definite time, & unattended by any functional disturbance of any special set of organs, this condition of ailing rather than of illness must keep us always on the alert especially with regard to Tubercular Meningitis in young children.

"Tubercular Meningitis.

Recovery from the Meningitis - leaving child Deaf & Dumb"

Joe Banks. aet 5 years. May 1885.

3rd May. I was called hurriedly to see this child who had been seized suddenly with "fit" / convulsions.

When I saw him he had been working in the "fit" for about an hour, it was a very severe one being more or less general, spasms were distinctly Epileptiform in character, frequent & very forcible, & more especially was this the case with muscles of the face Teeth were firmly clenched, & quite unconscious. Head very hot. Pupils dilated & insensible to light. Pulse 140 or 150 as near as could be counted.

I was informed that the convulsion had come on without any warning, & without any apparent cause that the Parents could imagine.

His health for several months past had not been very good, was gradually failing, & has become very much wasted lately, the loss of flesh having been very noticeable within the last few weeks. During the past few years

he has gone off his food considerably, Become very difficult to please in his diet. things that he used to be very fond of he now refuses altogether, & quite recently he has taken a great liking for fatty foods anything of a fatty nature he takes with relish, a thing that he always refused beat when he was in his usual way.

As Bowels had not been moved I gave him an injection of Soap Water with Castor Oil, On account of the convulsive movements it was very troublesome to give the injection, & not very satisfactory, however it moved the bowels & some hardened lumps of dark brown faeces passed.

After the injection he was put in Hot Water & Mustard bath, & during time he was in the bath the muscular spasms became less violent & less frequent. By the time he was rolled up in blanket & put to bed the convulsive movements had quite ceased, Consciousness returned & he began to cry.

Has never been troubled with any Cough since he had Measles & Bronchitis 2 years ago. &

Family History.

Father Mother both living & healthy.

6 Brothers & sisters living. the Younger Members are all affected with enlarged glands in the neck. one brother having running sore on his neck at present time.

2 Brothers died from Bronchitis in Infancy.

1 Sister died from Convulsions when 2 years of age.

(Patient is Youngest of Family)

examination of chest does not suggest any lung disease.
Had scarlet fever when 2 years old, but got over
it very well & made good recovery.
Temperature after being in bed for a little time 101°.6.
Tongue moist & covered with yellow fur.
belly soft, & flattened.

Prescribed Mixture containing Potassii Brom gr. 10.
Tinct Hyoscyam gtt. 15. (in Glycerine) in each
dose to be given every 3 or 4 hours.
& to have a powder containing.
℞ Calomelanos gr i Pulv. Jalapae gr. 5. mgtt & morning.

Diet to be restricted to Milk or Bread Milk.
& to be kept in bed, & quietness enjoined.
Cold lotions to be applied to head constantly.
10. PM. Had another convulsion about ½ hr lasting
for half an hour, during this seizure only the
left side of body including the face was affected,
spasms were very violent during time fit lasted, & it
was accompanied by horrid grinding of the teeth
at my visit he was lying in bed sleeping quietly
spinal muscles very rigid, & head retracted

Head hot, pupils equal, responding to light.
Respirations very slow & regular. Respiratory murmur
normal
Pulse 140. irregular. Temperature 102°.
No Vomiting, bowels moved since injection.
Cold applications to be kept constantly on head.
To have the Bromide Potassium mixture
regularly every 2 or 3 hours during night.

4th

Has had 2 or 3 slight convulsive turns during
course of the night, facial muscles alone being
affected, & only lasted for 4 or 5 minutes at a time
& he slept well between the attacks.
This forenoon he looks very worn & exhausted, face
much pinched & anxious, with dull stupid look
about the eyes: Has become very peevish &
irritable & will scarcely take any food, & requires
a lot of coaxing about what he does take
Pulse 130. irregular
Temperature 101°.8.

6th

Rested fairly well during the night,
no returns of convulsions. but has become very restless

& ill-natured since the morning. Mother remarks that his disposition for the last few weeks has changed very much, had become very cross & ill tempered compared with what he used to be.

To day he wants to be nursed constantly on Mother's lap as he says head is sore, & he keeps pressing or rubbing it constantly with his hands.

Tongue moist & covered with white fur.

bowels not moved since 3rd inst., he has taken complete dislike to all food & when he does take anything it is vomited soon after

Pulse 134 irregular.

Temperature 101°.6.

9th 9. p.m.

Pulse 136 irregular.

Temperature 101°.8.

lying in bed with head bored back into pillow. face turned from the light, & crying continually with pain of head.

Vomiting still continues, bowels not moved.

Head very hot especially over occiput.

pupils normal.

Has short dry cough today, but breathing is quiet

Joe Banks.

& there are no physical signs of Lung Mischief.

I was now confident that I had to do with case of Meningitis, probably Tubercular in its nature: the convulsions, vomiting, costiveness change in mental disposition, & the precursory wasting all suggesting this suspicion. I expressed this opinion to the Parents giving very gloomy prognosis

As bowels have not been moved since 3rd inst (first day of my attendance) he is to have small dose of Salts & Senna"

Prescribed following Mixture

℞ Potassii Brom 3iii/
Spt. Ammon Arom 3ii/
Mist Hyoscyam 3ii/ß
Syp Simp 3iv
Aq ad 3iii/. Hb.

Sig. 3ii/ every 4 hours in water.

9th

restlessness & irritability still continues very troublesome sleeps none, night or day. during the last 2 nights there has been a good deal of low muttering delirium. last night he started up 2 or 3 times wild & frightened like, & said there were strange people in

the room & under his bed.
During the day he is very irritable, Mother has to walk about the room with him in her arms to please him & if he asks for drinks at one time he will take it, & perhaps the next time he will dash cup from him on the floor, & then begin crying for drink again.
Vomiting still comes on occasionally
bowels moved once with Salts & Senna.
Cheeks flushed, eyes sunk with dark line underneath.
abdominal wall much retracted.
Pulse 100, intermittent.
Temperature 100°. 6.
As he has had no sleep I prescribe following mixture

℞ Potass Brom 3ᵢᵢᵢ
Chloral. Hydrat. 3ij
Inict. Hyoscyami 3j
Aq ad 3ᵢᵢᵢ. M.

Sig. 3ᵢᵢ to be given every 4 or 5 hours if restless.

18th has slept a little during the night, but still very irritable & peevish today.
More inclined to lie in bed, complains very much of the pain of head. bores it into pillow, & presses

it with hands. (has only had 2 doses of Chloral mixture)
Has only vomited twice during last 24 hours.
bowels costive. Tongue moist & furred, takes food very greedily.
Head still very hot. pupils dilated.
Pulse 80 intermittent.
Temperature 101°.

12th "

Restless & irritable condition noted on 9th still continues to considerable extent.
still complaining of pain of head. Sleeps very little & when he does doze over for a short time, he usually wakens up frightened stares about wildly for a few seconds & then complains of pain of head. occassionally he cries out bitterly with the pain. (so far as I have observed there has been nothing like the characteristic "cri H" present).
the left hand only is used in putting up to head or rubbing it, doesn't use right arm today at all
Pulse 100 soft & intermittent.
Temperature 107°.2.
Jactitation easily produced on skin of Chest & over forehead.

Cheeks flushed, eyes very much pink,
Pupils unequal, left contracted.
Cough noted several days ago almost disappeared,
breathing is quiet, & careful examination of Chest
satisfies me that there is no pulmonary disease.
Skin is rather dark, but careful examination of trunk
fails to detect anything resembling rose-spots of
Enteric Fever. & bowels have only been moved with
purgative Medicine
Temperature also precludes idea of Enteric Fever.
Prescribed Ry Potassii Bromi ℥ij & ℥ij
" Iodidi grs. 80.
Tinct Cinchonae ℥ij
Glycerinii ℥iv
Aq ad ℥vj M.
Sig — ℥j every 6 hours in water.
& Powders containing.
Ry Pulv. Hydrarg c Creta grs. 18.
" Rhei grs. 6 M. Ft pulv.
Div in pulv. 12.
Sig. One night & morning.

To be well fed with Milk. Bread & Milk or Beef-tea

13th " has been quieter since yesterday, rested better still says head is very sore if asked about it there is certain degree of drowsiness today, in answering questions he does so very slowly, as if he had to think about them; & sometimes he forgets as it were what he is saying, & doesn't finish what he was going to say. He is also somewhat deaf today, & require to speak very loud to him.

Tongue moist, no vomiting, bowels not moved, taking food well.

slight squint of left eye; there has been a peculiar staring & suspicious look about his eyes since first day I saw him this has arrested my attention all along. Mother also remarked it & says it is only since he took this trouble that she has noticed this queer look about his eyes.

Pulse 80 intermittent

Temperature 101°.

there is also present today considerable degree of rigidity of muscles of arms & hands, lower limbs not affected in this way.

inclined to lie constantly in bed today. &

does not want to be disturbed in any way altho he takes food well when given but never asks for it. Bromide of Potassium omitted from Mixture prescribed Yesterday.

During the next 5 or 6 days he continued in very dull languid state, crying & irritability has completely left him, wishing to lie constantly in bed with face turned to the wall. Eyes were kept closed most of the time but he did not appear even to sleep any, for at times the least noise or talking in the room caused him to open his eyes & stare about him vacantly. Sometimes he complained at the least noise, the opening or shutting of the doors would fret him very much & he would say that the noise made his head sore. Took no interest in his surroundings & would ask for nothing, but if food or medicine was given him he took it greedily.

When spoken to or asked any question he would answer slowly but correctly. When asked if head is painful? he would shake or nod his head, & say he was wearied & wanted to sleep.

Pulse 70 to 80 during this time & intermittent.

Temperature ranged from 100° - 101°

Tongue kept moist with white fur, face pretended

slowly & tremulously as mid line.
bowels only moved once in 5 days with medicine
At nights he usually lay pretty quiet with eyelids
half closed, & when he did sleep a little it was
usually accompanied with low muttering delirium,
the sleep however was never very sound as the
least noise in the room or even talking would
be enough to cause him to open his eyes &
look up.

He continued in this languid state till
the forenoon of the 19th when he was again
suddenly seized with "Fit of Convulsions" without
any appreciable warning. I saw him during
the "Fit" which was a very severe one, he was
quite unconscious, teeth firmly clenched, spine
rigid, & squinting with both eyes. Spasmodic
actions of muscles were very violent, especially was
this the case with facial muscles, giving rise
to frightful contortions. The Convulsion lasted
for nearly an hour & passed off gradually the
facial muscles being last in which the spasms
ceased. He remained in Comatose state
when the "Fit" passed off, with slow stertorous

breathing. & paralysis of facial muscles on right side.

23rd

still in state of coma with slow stertorous breathing.
Urine & faeces passed in bed.
Pulse 140 irregular
Temperature 100°.
swallows very closely & with great difficulty.

24th

still comatose, with slow irregular breathing.
Convergent squint of left eye
Head very hot. red spot on right cheek.
not swallowing any today.
Urine passed in bed just as he lies.
belly very much sunk, whole body in extremely emaciated condition.
Pulse 146. irregular
Temperature 99°.

According to arrangement I had to leave town today for my Holidays, the case at this point being taken up by my Locum Tenens (Dr. Brown).

As I never expected to see child alive again

I was very much surprised to find on my return in 14 days that he was still living & able to sit up in bed, & could take food well

Conva had continued till the 25th that was the day after I saw him, then it began to pass off gradually leaving him very dull & very feeble for a few days: but he took food well & began to gather a little strength & by the end of a week from time Conva disappeared he was able to sit up in bed.

For the next 5 or 6 weeks he continued to improve very slowly, & altho he took his food well he did not appear to be putting on flesh, as he still remained very emaciated in the body & limbs, face very haggard & pinched

Face had also a very stupid expression, there was decided look of imbecility about his face which he had not before this illness.

It was observed that he never made any attempt to speak, but little attention was paid to this at first, but it soon became quite plain that he had lost power of speech, he never asked for anything nor made any

attempt at saying even the simplest words. It also soon became apparent that he did not hear, he paid no attention when spoken loudly to, or even loud noise made at side of his head elicited no response. When spoken to in pretty loud voice his expression gave no indication of hearing what was said to him, neither was there the slightest attempt at replying. He was quite deaf.

Parents themselves were first to be struck with the idea that child was both deaf & dumb.

3 Months after illness. speech had not returned only words he attempts to say are ah! Ah! & No! No! but no effort at anything further than that. still quite deaf does not appear to hear any at all, the loudest noise making no impression on him.

Examination of Ears could not detect anything to account for deafness in Auditory Canal.

Child's face has very silly expression quite different from what it was before this illness.

His temper has undergone great change also he is now very irritable & ill natured. Mother

Name Joe Banks. Age 5 Years. Disease Tubercular Meningitis. Admitted

May

| Date | 3 | 4 | 6 | 7 | 9 | 10 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day of Dis. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| Time | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E |

Temperature (Fahrenheit.)

106° 105° 104° 103° 102° 101° 100° 99° 98° 97°

Normal Temperature of body

Temperature (Centigrade.)

42° 41° 40° 39° 38° 37° 36° 35°

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pulse. M | 150 | 130 | 134 | | 100 | 80 | 100 | 80 | | 70 | | | | | | | | 140 | 146 |
| Pulse. E | 140 | | | 136 | | | | | | | | 60 | | 80 | | | | | |
| Resp. M | | | | | | | | | | | | | | | | | | | |
| Resp. E | | | | | | | | | | | | | | | | | | | |
| Bowels. | C. M | C | C | C | Salts & senna | C | C | C | | M. | | | | | | | | | |

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moved

A VERTICAL LINE MAY BE DRAWN AT THE END OF EACH WEEK OF DISEASE.
FOR NOTES OF CASE SEE BACK OF CHART.

Printed & Published by H. K. Lewis, 136, Gower Street, W.C.

(RICDEN'S CLINICAL CHART.)

States that his temper is almost unbearable now, he will go into perfect paroxysm of rage for the very slightest thing if he is not attended to just at once. He has become very pettish & wants to be nursed on Mothers knee almost constantly.

About 7 months after illness he was brought to me again to see if anything could be done for his hearing. Speech nor Hearing had not changed any since I saw him last, & he was still very irritable in his disposition.

Has taken his food well all along, but his body has not gained much in flesh, altho his face has filled up a little since I saw him last, still has same silly expression, pupils dilated

I could not give very definite opinion to the Mother about either Speech or Hearing, & have not seen him for several months but if I possibly can I intend to keep him under observation.

Remarks. The onset in this case was marked by distinct Epileptiform seizure, altho it is well-known & referred to by most writers on the subject, that well-marked Convulsions may be first symptom of Tubercular Meningitis, still this is not so commonly observed as the insidious mode of onset.

In present case there was violent convulsion lasting for about an hour, then passing off to return in modified form some hours afterwards. This is one of the few cases of Tubercular Meningitis I have had under my care in which Convulsions marked the onset of the illness.

(out of about 20 cases of Tubercular Meningitis of which I have notes only 3 of these are noted as beginning with Convulsions).

There was no Phthisical Family History in this case, but the younger Members of the family all had some scrofulous manifestation, as enlarged or suppurating

submaxillary glands &c.

The symptoms all thro' the case were quite pronounced & pointed clearly in direction of the diagnosis made, there was no "Cri-A" heard by me at any time during course of the case, but the recurrence of the convulsions was very important point.

There was no history of Typhoid Fever in the family or in the "land" in which patient lived & the temperature, with absence of Diarrhoea & eruption &c negatived idea that illness was due to Enteric disease.

The repeated examinations made of Chest & the absence of Pulmonary symptoms made it certain that Lung disease was not a factor in the case.

As between Tubercular Meningitis & Simple Inflammation of Brain or Meninges, it is to be said that the pulmonary failing of health & wasting, with the distinct Scrofulous disposition, & symptoms & course presented by the case generally, are all in favour of the cerebral lesion being of a Tubercular nature.

That this was case of Tubercular Meningitis I have

not the least doubt, & the case shows that recovery or partial recovery from Tubercular Meningitis is not altogether impossible, that partial recovery should take place as in this case after coma had lasted for several days is not by any means frequent. The lesions left by the disease in this case were very pronounced, the illness leaving him both Deaf & Dumb. his face has also a very silly expression, anyone looking at him would notice at once that there was something peculiar about the boy, there being distinct want of intelligence in the face, his temper as I have already stated has also changed in a very striking manner.

As I have noted, the boy's conditions was much the same as what I have described, months after the illness, when I had an opportunity of again examining him. He looked stunted in his growth, & had delicate appearance

This case has an important bearing on a point raised by Dr. Clifford Allbutt in his admirable book. on "The Uses of the Ophthalmoscope in Nervous Diseases" &c He believes that many cases of Meningitis that are recovered from leave permanent injury behind in the brain. & that sometimes Idiocy may be due to a past attack of Tubercular Meningitis. the cites cases in support of his views.

In his book Dr. Allbutt publishes a letter from "Dr. Crichton Browne" who had abundant opportunities for observations on this point in "Wakefield Asylum" Dr. Allbut puts the Question to Dr. Crichton Browne

"Whether you think Idiocy is often to be traced to tubercular Meningitis of past years?".

Dr C. Browne in his letter states "that he has seen a few cases of Idiocy which were distinctly referable to tubercular Meningitis in early years. & a considerable number of cases in which I suspected a similar causation" & he also states "that he is quite persuaded in his own mind that partial & subacute attacks of tubercular meningitis are much more frequent than is ordinarily suspected, & are sometimes responsible for certain abnormalities

which anatomists are in the habit of attributing to pyrexia "et hoc genus omne"

The case of this boy which I have here recorded would seem to bear out this contention of Dr. Allbutts, as there is certain degree of Idiocy now present which is quite apparent in Childs manner & expression.

This is only case of the kind which I have met with. & if I have the opportunity will follow the future course of case with a considerable degree of interest.

Dr. Gee in "Reynolds' System of Medicine" "Art. Tubercular Meningitis" states that in regard to terminations of this disease, "That it may terminate in recovery, but this is apt to be incomplete, the child remaining blind, paralysed or imbecile, whether incomplete or not a recurrence of the disease in the course of months or years is greatly to be dreaded.

## Prognosis in Tubercular Meningitis.

During attendance on cases of this nature the question of prognosis becomes a very anxious one for the Medical attendant. This disease is almost invariably fatal, recovery being extremely rare. "Prof. Charteris "Pract of Med" states that T. Meningitis is incurable. While it is no doubt true that the vast majority of cases of tubercular meningitis die; I am not disposed to accept in its entirety the opinion expressed by M. Valleix "that when once we have acquired the conviction that a case is one of tubercular Meningitis we should regard case as hopeless" because were we to do so then of course it would be needless to pursue any plan of treatment at all in this disease, a practice which I am not disposed to adopt.

Dr Lee in Reynolds' System of Medicine, writes "that the rule of inevitable death in tubercular Meningitis must be qualified by the admission that recoveries occasionally take place. & that although the latest period itself is not absolutely removed from this fortunate possibility yet these mirabilia of recoveries are to be held of no account in the prognosis of any given case".

Again the number of well authenticated cases of recovery recorded by such able & well-known observers as. West. Rousseau. Meigs & Pepper &c. ought to inspire

us with some degree of hope even in a disease of such a fatal nature as tubercular meningitis. Dr. C. Allbutt has recorded (in his book on the Ophthalmoscope to which I have already referred) at least 2 or 3 cases of recoveries from tubercular meningitis, in which diagnosis made by Ophthalmoscope was verified some years after at the Post-Mortems of patients.

Again it must be said that if we form gloomy prognosis at early stage of case, where from very nature of it there must be degree of uncertainty as to diagnosis, (seeing great resemblance tubercular Meningitis has to other diseases in early stage simple Acute Meningitis for example) there is just a possibility that we may lose a patient that appropriate treatment early & systematically pursued might have saved.

In disease of such a fatal nature as this it is impossible to state with any degree of definiteness of the conditions

Which would regulate prognosis in every individual case.

Favourable signs in general way would be.
Tranquil sleep, absence of twitchings or convulsions, or paralysis
Regular pulse, normal condition of pupils.
natural & calm expression of face

Unfavourable, rapid small pulse. quick or very slow irregular respirations. frequent recurrence of convulsions. persistent coma. &c.

In reference to the questions of diagnosis & prognosis.
Dr. Fagge in Practice of Medicine page 584 refers to a very striking case that occurred in "Guy Hospital under care of Dr Barlow." This patient a boy 9½ years died after an illness of 12 days duration, symptoms included Headache, convulsions, grinding of teeth, Strabismus & Coma. Tubercular Meningitis diagnosed by all who saw him. No tubercles found in Brain at P.M. & he states that cases such as this make it necessary that we should always be cautious in asserting positively that a patient is suffering from tubercular Meningitis & perhaps they should especially deter us from giving an absolutely unfavourable prognosis."

Dr. West "Diseases of Children" refers to case somewhat resembling this one of Banks'

"Child 3½ years. member of Phthisical family a brother had died a year before from Hydrocephalus. Coma, & Convulsions was present, & patient recovered from what was diagnosed as Tubercular Meningitis. Power of speech not regained for many weeks, & her manner remained half idiotic – 3 years after the illness she had not regained flesh, nor look of health. & she had weird cast of countenance, & vacant smile which was persistent."

"Tubercular Meningitis in a child.
3 weeks duration — Hydrocephalic cry present.
Comatose for some days.—
Recovery"

Janet, R. Semple. aet 7 years. 1881.

In March this child was brought to me by her Grandmother who told me that she had been in failing health all thro' the winter. Has a short dry cough, & is subject to frequent attacks of Biliousness; Sent to School for first time 6 months ago, & it is since that time that poor state of her health has been most marked, & her delicate health is now attributed to the confinement at School.

She was reared by hand on the bottle, & has never been what would be called a robust child. Had Measles, Bronchitis & Scarlet Fever when quite an Infant & only recovered from them very slowly.

When she was 2½ years of age she had a very severe illness of some weeks duration & was attended by Dr Alexander Patterson for

What he told the Parents was threatened "Hydrocephalus"
Head at that time was freely blistered, &
Grey Powders given internally for length of time

Family History

Father living subject to Chronic Bronchitis
Mother living in good health (died of Pneumonia
in Dec. 1885). When about 4 years of age she had
an illness of 6 ~~years~~ weeks duration. The Doctor
who attended her (an old Practitioner in town now deceased)
said it was "Water in the Head". From what
I gathered of this illness she was unconscious
for a number of days, head was shaved & very
freely blistered. her recovery was quite unexpected &
very tedious. And it was always thought that
it had left her rather dull in the intellect.
all thro' her School life she was very slow with her
lessons, & very backward compared with girls of her own
age. By the time she arrived at womanhood.
she was still looked on as rather
weak in the head, & was very subject to
gloomy desponding turns, at other times she
was subject to violent outbursts of temper, these
mental peculiarities were by her relatives all

attributed to the illness she had suffered from in her head during childhood.

1 Sister died at age of 18 months of "Hydrocephalus" I attended this child which presented pronounced symptoms of Tubercular Meningitis.
Another sister died at age of 15 months from Cerebral disease presenting symptoms closely resembling those found in Tubercular Meningitis, but which I consider were in reality due to some Syphilitic lesion.

(This case will be referred to further on in this paper)
(page 463)

Patient was pale, fair haired girl, with clear complexion & large sphroe shaped head, there is Rickety enlargement of wrists & ankle joints, & both tibiae are bent outwards near the ankle.
Owing to being brought up by hand on the bottle she always required great care with her food & stomach.
Has been rather worse than her usual for a week or 10 days back, & has been kept

from School as she was thought to have one of her usual bilious turns.

Has complained very much for some days back of pain in her head, & been very dull & listless, & would hang about the fireside without any inclination to play about or amuse herself.

Tongue covered with yellow fur & moist.
belly soft, bowels not moved for 4 days.
Vomiting persistently for last 3 days. everything she took in way of food was rejected with very little effort.

The parents were firmly in belief that she was suffering from close confinement at School, & they said she was bilious & that if bowels were moved she would be all right. she had been dosed with Salts & Senna to purge her, but they had been rejected soon after taking.

Head hot, pupils equal.
Pulse 120 slight irregularity.
Temperature 101°.6

When asked what is wrong with her? or if she has any pain? she says her head is sore & she wants to get to bed & have cold clothes put on her head."

Careful examination of Chest does not show any indications of Lung disease.

I was inclined at this time to think this might be onset of Enteric Fever, & advised her to be kept in bed, head to be shaved, & to have cold applications applied frequently.
Linseed meal & mustard poultice to be applied over Stomach & Bowels.
Milk & ice in small quantities frequently.
& prescribed following Medicine

℞ Pulv. Rhei
" Hydrarg c Cretae aa grs. X ||
Mft pulv. et div in pulv. X ||.
Sig. One night & morning.

℞ Potassii Brom ʒ ||
Inict Hyos cyanus ʒ ||ℓ
Glycerinii ʒ |v
Aq ad ʒ |||
Ft Mist — Sig- ʒ || every 4 hrs in water.

When I saw her again on the 9th March.
She was no better, lying on side in bed with eyes

half closed, face turned to wall to avoid the light, moaning almost constantly, rolling head & complains very much of pain in it.
Face flushed, & head very hot.
Tongue red at tip & edges, covered with yellow fur.
Vomiting still continues, bowels have been moved
Pulse 120, full, & irregular.
Temperature 100°.4.
Has been very restless during last 2 nights, never slept longer than 15 or 20 minutes at a time. It is noticed that right arm & leg are in almost constant motion, left arm lies motionless by her side.
10th This being as I calculated about 10th day of illness I made careful examination for Eruption, or other signs of Enteric Fever, there was no rash to be discovered, but there was a degree of tenderness in right iliac fossa on pressure, the temperature however as yet does not give any indications of Enteric.
Altho' I was inclined to the idea that this was mild case of Enteric Fever, yet I was not certain, altho' feverishness & muscular weakness might be looked on as pointing in that

direction, for diarrhoea there has been none from onset of illness till this time.
The family History with the Vomiting, costiveness & severe headache, & some other symptoms now present raised strong suspicions of an Cerebral disease.

Belly is flattened with pain in Hypogastrium.
Pulse 120 soft, & irregular.
Temperature 102°. Sensation & motion in lower limbs are in striking contrast with that of the arms being much diminished. For the next 4 or 5 days there was very little change in patients condition, no new symptoms presented by which I could positively settle my diagnosis symptoms that arrested my attention principally were the drowsiness, & the pain in the head, tho' the drowsiness is evidently becoming deeper she still cries out very much at times with the pain of head.
Vomiting has almost ceased only occurring 2 or 3 times in course of 24 hours.

She is still very restless at nights, & moans very much when she does sleep, & does not appear to be in any way refreshed by what

sleep she does get, inclines always to lie with face turned from the light.
Pupils widely dilated & respond freely to light.
Tongue moist with slight yellow fur, bowels only moved once in ~~24 hours~~ 4 days.
Temperature taken regularly does not indicate any evening rise or morning remission, in fact morning temperatures have been higher than the evening. Up till this time the temperature range has been from 100°. to 101°.6 on one occasion it was 102°.

14th

Today she is lying down in bed on her back, with eyelids half closed, eyeballs are turned upwards & just the whites of eyes visible, considerable degree of stupor require to shake her to waken her up, & on speaking loud she puts out her tongue slowly & tremulously.
Pupils dilated & respond very slowly to light.
During last night she had been very restless, & started up 2 or 3 times crying with pain of head, once or twice when she did doze over for a little she opened her eyes wide & stared

straight before her & then gave a loud scream & dozed over again. Parents said that they thought she was unconscious when she gave expression to this scream, it occurred 4 or 5 times.

I was inclined to consider this from their description as the "Hydrocephalic cry."

Pulse 80, ~~Lbour.~~ Intermittent.

Temperature 100°.4

Vomiting ceased entirely, bowels moved, belly boat-shaped.

Tache cerebrale may be produced on almost any part of body & persists for considerable time.

From character of symptoms today I was quite convinced that this was case of Tubercular Meningitis I had to deal with, & that the stage of effusion on brain was imminent.

I frankly told the Parents that I was afraid child would die of Hydrocephalus. & on my remarking that I felt inclined to Blister the Head freely they at once placed case unreservedly in my hands to act in whatever way I thought best, as they said she had

derived good from blistering head on former occasion
To be regularly fed with Milk, Bread & milk,
Beefteas &c
Blister 4×4 to be applied on right side of head.
Following Mixture & Powders prescribed

℞ Potassii Iod. 3ss
Inf. Cinchonae 3ij
Glycerini 3iv
Aq ad ℥iij M.
Sig- 3ij every 4 hours in water.

℞ Pulv. Hydrarg. c Cretae gr. 18
Div in pulv. xij.
Sig- One night & morning.

15th Has been restless during the night- evidently due to irritation of Blister; as she is in very drowsy condition during my visit, altho' spoken very loudly to does not make any attempt at answering, or show any signs of hearing what is said to her.
Pupils are unequal. left contracted.
Pulse 90 Soft & intermittent
Temperature 100°

Blister had acted well, & when it was cut Serum let out
Bread & milk poultice was applied.
a 2nd Blister to be applied behind left ear tonight
16th
2nd Blister has also acted very well, blistered surfaces
are to be dressed with "Blue ointment."
child in state of coma today, quite unconscious
lies as side sunk down in bed, bright red
spot on both cheeks, eyes closed & very much sunk,
pupils dilated & scarcely respond to light
Urine passed involuntarily.
Pulse 70 intermittent.
Temperature 100°
All Medicine & food has been stopped as
it just lay in side of cheek & ran out of mouth.
18th
still in comatose condition today. has had a very
restless night, rolling head back returned, & she screamed
frightfully at times, & at other times she would start
up suddenly & stare straight before her as if
she was watching something
Pulse 60 intermittent.
Temperature 100°

urine & motion from bowels passed in bed.
pupils contracted to pin-point. do not respond to light.
milk runs out of mouth.
Hy Blister 4 x 5 to be applied over Vertex.
2 last Blisters still kept open & discharging
matter pretty freely.
19th
Blister applied yesterday has acted very well, but
child not annoyed with it in any way.
large Bread & milk poultice to be applied over
whole of blistered surface of head.
child in same comatose condition, restlessness has
not returned since night before last
lies sunk down in bed with mouth & eyes
half open & breathing very slowly.
bright red spot on right cheek.
pulse still slow & intermittent
Temperature 100°2. pupils dilated.
Chest carefully examined nothing to be detected,
with the exception of a very few Bronchitic rales.
Another Blister to be applied over occiput tonight.
20th
Blister put on head last night has given well &

been cut & serum let out. did not cause any irritation, & the child's scalp now presents an extensive surface of red flesh which has tendency to bleed when cloths are taken off. Large bread & milk poultice to be kept on this bleeding surface to encourage any discharge from it.

Pulse, 90 irregular

Temperature 101°.

When I saw child this afternoon there appears to be some slight return of consciousness, for when I attempted to turn head to one side to look at blistered surfaces she put up her hand to head & said "dont" attempting to draw head away from me at same time: this is the first time she has made any attempt at speaking for some days. When asked in loud voice to put out her tongue her lips are closed & teeth clenched.

Since morning she has taken a little milk & has had her medicine. Potassii Iodidi mixture & Hyg Powders to be continued.

To have small dose of Salts & Senna tea.

21st — puts out her tongue slowly when asked.

pupils equal & normally dilated, decided squint of left eye.
Pulse 100, full, soft, & irregular.
Temperature 99°.6.

During next 4 or 5 days comatose condition passed away very gradually, & in a week from day last blister was put on head all stupor had quite disappeared, & she could answer any questions correctly & intelligently. Has taken food very well for some days back. Face is very much pinched, & body greatly emaciated. & she is in state of great exhaustion & debility. She makes scarcely any attempt to help herself, lies sunk down in bed taking food & medicine when given to her.
Any attempt at gathering strength very slight. Blistered surfaces on head only healed with difficulty as she gathered strength & that was very slowly. & it was many weeks before she could be said to be fairly well.
Squint of left eye persisted for about 10 days after last blister was applied to head.

A month after Coma disappeared she was just beginning to move about the house looking very frail & feeble.
Pulse then was 100, soft & regular
Temperature 99°8.

Convalescence in this case contrasts with that seen in child of same age recovering from Enteric Fever, where there is usually a rapid return of health & strength after an illness of 2 or 3 weeks' duration, in present instance this was not so, she remained very feeble for a long time, even under most careful nursing with Tonics, Cod Liver oil, Wine &c it was several months before she could be said to have recovered from this illness, during all that time she did not make up flesh or improve in appearance

I have seen this patient frequently since the above illness, last time was in Dec. 1884 at that time she was not what could be called a robust looking girl, she was troubled with Chronic Cough & frequent headaches

Name Janet Semple. Age 7 yrs. Disease Tubercular Meningitis. Admitted March

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Date | 6th | 9th | 10 | 14 | 15 | 16 | 18 | 19 | 20 | 21 |
| Day of Dis. | 8 | 19 | 12 | 16 | 17 | 18 | 20 | 21 | 22 | 23. |
| Time. | M E | M E | M E | M E | M E | M E | M E | M E | M E | M E |
| Pulse. | 120 | 120 | 120 | 80 | 70 | 70 | 60 | 70 | 90 | 100 |
| Resp. | | | | | | | | | | |
| Bowels. | C. | M | mee in 4 days. | | | | Mr in Bed. | | | |

Temperature (Fahrenheit.)

106° 105° 104° 103° 102° 101° 100° 99° 98° 97°

Normal Temperal of body

Temperature (Centigrade.)

42° 41° 40° 39° 38° 37° 36° 35°

1 month after this date. Temp 99°.8. Pulse 80.

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A VERTICAL LINE MAY BE DRAWN AT THE END OF EACH WEEK OF DISEASE.
FOR NOTES OF CASE SEE BACK OF CHART.

(RIGDEN'S CLINICAL CHART.)

Printed & Published by H.K.Lewis.136.Gower Street.W.C.

which confinement at school aggravates, & she is very irregular in her attendance at school on this account & for this reason probably she is very dull & backward with her lessons

She is also very irritable in the temper & very nervous. Parents attribute her dull mental condition & irritability to the above illness.

Remarks.

The almost invariably fatal termination in cases of Tubercular Meningitis is very apt to suggest the idea of mistaken diagnosis in cases of reported recovery from this disease.

That almost all cases of Tubercular Meningitis end fatally is undoubtedly true, this is the testimony of the majority of Authorities writing on this subject, & a very short experience of General Practice is sufficient to convince any one almost of the truth of this gloomy prognosis.

Rousseau in his Clinical Medicine Vol I states "this disease is nearly always invariably fatal"

Dr West. Diseases of Children p. 95 says "that under almost every variety of condition of symptoms & of

treatment patients die."

Dr. Charlton Bastian in. Art. Tubercular Meningitis "Quain's Dict of Medicine" states "that death is almost well nigh certain within 3 or 4 weeks"

Dr. Geo. B. Wood. Pract of Medicine. Vol II. p. 365 states that he has never seen a case of well-marked Tubercular Meningitis end favorably.

Dr. Whytt. writing in 1768 in his admirable "Essay on Dropsy of the Brain" says. "I freely own I have never been so lucky as to cure one patient who had those symptoms which with certainty denote this disease"

While it is no doubt true that Tubercular Meningitis is almost invariably fatal, still isolated cases of recovery do occur. Authentic cases of recovery are recorded by many competent observers, even by some of the eminent authorities I have referred to above

Dr. West in his book p. 96. records 2 cases of recovery (1) after 2nd stage commenced & a 2nd in which Tubercular Meningitis subsided after convulsions & coma this child was of

Phthisical parents & a brother died year before from Hydrocephalus child did not regain flesh & was deficient in intelligence.

Rousseau also relates 2 cases of undoubted recovery in one of the cases patient died 5 months after from Dysentery. & on P.M. unmistakable traces of Cerebral tubercle was found.

The important observations made by Dr. Clifford Allbutt of Leeds & recorded in his Book on "The use of the Opthalmoscope in Cerebral Disease" &c have a very important bearing on this question of Prognosis. in that work Dr. Allbutt refers to a large number of cases of Tubercular Meningitis in which the opthalmoscope afforded valuable assistance in way of diagnosis & indications for treatment. He reports a number of cases of recoveries in which he has no doubt as to the diagnosis; While I consider that the reports in a number of Dr. Allbutt cases are too meagre on which to formed diagnosis, & that it is just possible that some of the cases he cites may not have been cases of Tubercular Meningitis

at all. Yet I am not disposed to think that such an experienced & accurate a Physician as Dr. Allbutt was mistaken in diagnosis of all the cases he cites as recoveries from this disease, & I agree with him when he states that recovery may be obtained occasionally if the disease is taken at early stage & systematically & energetically treated: Drs Churchill. Hein. Gobis. Odier &c report numerous cases of recovery & express opinions similar to Dr C. Allbutt regarding Prognosis. Many of the cases of reported recoveries from Tubercular Meningitis scattered here & there in Medical Literature are no doubt cases in which the diagnosis has been at fault: & that is the important point in cases of this nature, & considerable care must be taken in watching the case as it goes on, & carefully note symptoms so as to avoid as far as possible all risks of mistakes in diagnosis.

In present case the chest examinations precluded idea of the illness being due to any disease in the Lungs, & the only other disease which this case was likely to be confounded with was Enteric Fever which is not uncommon at age

of my patient.

At the outset this case did suggest idea of Enteric Fever, as the symptoms present very much resembled those met with in some cases of that Fever in children, but as the case progressed there was an entire absence of the symptoms diagnostic of that disease. There was no diarrhoea during whole course of the case, & there was no rose spots to be detected

The again temperature again was against the theory of the case being one of Enteric Fever, temperature ranged from 100° to 102°. & was highest just at beginning of the case, & instead of being highest in the evening as in Enteric, it was highest in the morning, there was nothing approaching to morning exacerbation & morning remission in the temperature chart.

Although we may have Enteric Fever present in children without the usual diagnostic signs of Enteric met with in young adults, with in fact only a condition of "Malaise" & slight elevation of evening temperature. Yet against

that view in this case we had the manifest head symptoms gradually progressing.

Another important feature distinguishing this case from Enteric was the nature of the convalescence being very tedious with this child, & it was many weeks before she gained much strength, & even then she looked very puny & delicate: Whereas in Enteric children usually improve rapidly after 2nd or 3rd week of the Fever, & soon gather flesh & strength, & in many cases soon become much better in health than they were before they took the Fever.

For above reasons

I have no hesitation in considering this a case of Tubercular Meningitis & not Enteric Fever, the premonitory vomiting, & vomiting & headache at early stage were symptoms of Meningeal lesion & as the case went on the head symptoms became more marked, pulse was slow & intermittent "Cri Hydrencephalic" Tache cerebrale drowsiness stupor, Coma the latter persisting for several days, & with this combination of characteristic symptoms & consideration of the case as a

whole point unmistakably to lesion being of a Tubercular nature. It is quite a possible thing that in rare instances of recovery from Tubercular Meningitis, tubercular deposit may have been present but limited to a portion of "Pia Mater" & superficial part of Cortex of Brain. Cases of this nature being reported by different Observers.

It is to be noted in this case that there were no convulsions during whole course of case, but it may be remarked with regard to this symptom, that Convulsions are not an invariable symptom in Tubercular Meningitis, & that it is not on isolated symptoms, but on careful consideration of Case as a whole that we are to found our diagnosis.

Family History, unique in this case & is very much in favour of diagnosis made. Father suffered from Chronic Bronchitis. Mother at time of childs illness was in good health but died of Pneumonia in Dec 1885. When a child she had a severe illness said to be Hydrocephalus, head

was blistered & recovery was very tedious. She was very backward at School, & looked on by parents as a little deficient in intelligence, her slow mental condition was attributed to this illness in her head in infancy.

1 Sister died at age of 18 months with very characteristic symptoms of Tubercular Meningitis, I attended. Convulsions & coma were well-marked symptoms during last few days of life.

1 Sister died at age of 15 months from Cerebral Lesion which I considered probably Syphilitic (will refer to this case again)

It is also noteworthy that the patient herself was ill for 2 or 3 weeks; & attended by Dr. Alexander Patterson, Glasgow. Who said she was threatened with Hydrocephalus Treatment he adopted was Blisters to head & Grey powders night & morning for considerable time.

Treatment of Tubercular Meningitis.

The utility of any treatment in this disease is a very debatable point. Although we have advanced considerably in our knowledge of the Pathology of this disease since Dr. Wyth of Edinburgh wrote his famous "Essay on Dropsy of the Brain" it can scarcely be said that we have advanced any if it all in our treatment of it, & the statement that the "most of the patients suffering from Acute Hydrocephalus die" is about as true now as it was 100 years ago.

Since Dr. Wyth's time many different drugs have been tried, & many different plans of treatment adopted: at one time an Energetic treatment was recommended, at another an expectant plan was pursued, both these systems having their advocates, but both unfortunately giving the same unfavourable results

Trousseau contrasts results of energetic & expectant plans of treatment, & states "that he has found that patients die sooner under energetic treatment than when no treatment is adopted" & he states that he has tried, Blistering Leeching, Mercury, Iodide & Bromide of Potassium

& many other drugs without any good result. the experience of many other observers coincides very much with that of Rousseau's.

On the other hand many other able observers advocate use of vigorous line of treatment, & support their views with illustrative cases

Dr. Churchill in Diseases of Children believes that "Hydrocephalus" consists essentially in Inflammation of Membranes of Brain, occassionally accompanied with deposition of tubercular matter, & he agrees with Dr. Davis that when attacked early with vigorous treatment, a proportion of cases may be cured, & say, "he can not too strongly express his sense of the importance of early & vigorous treatment, & that he is convinced that many children are lost by usual moderate remedies that might have been saved were more active measures adopted."

In considering treatment of Tubercular Meningitis 3 very important points require to be remembered.

(1) Invasion stage is generally marked by distinct inflammatory disturbance.

(2) That in majority of cases, Tubercular Meningitis is merely a fragment of a general disease & that it occurs in a constitution tainted with Tubercular diathesis

(3) in some cases this disease may occur in patients who are to all appearance healthy, & who have no family history of either tubercular or Scrofulous disease.

Bearing these points in mind they will furnish us with valuable indications as to line of treatment, while at same time they may be the means of preventing us running into extreme views as to prognosis or treatment.

There can be no doubt that tubercular diseases, such as tubercular peritonitis & tubercular Phthisis are looked at rather more hopefully now than they were some years ago, cases of recovery from these diseases being recorded by many competent observers, Dr McCall

Anderson, Sir Thomas Watson & others reporting well authenticated cases of recovery (Dr McCall Anderson, in Clinical Medicine & Sir Thomas Watson, Lect on Pract. Medicine) And when we consider that there are cases of Tubercular Meningitis, coming under the 3rd head that I have indicated; Family cases, in which the patient is of healthy appearance, well nourished, & good family History, it is not unreasonable to expect that the great advances that have been made in recent years in our knowledge of the Pathology & Therapeutics of tubercular diseases in general, may have some influence in treatment of even such a fatal disease as Tubercular Meningitis.

Improved sanitation amongst the community in general is admitted to have some share in reducing mortality from Tubercular diseases.

In this connection a very important point has been brought out by

Dr. Crichton Browne, in his report to the "Education Department" on over pressure in Schools."
(Brit. Medical Journal 1884. vol 2. p. 622)
he "states that Mortality from "Acute Hydrocephalus under 5 years of age is steadily falling. owing to increased improvement in Sanitary conditions. Mortality from 5–20 years & above 20 increasing

As children under 5 years participate in benefits of Sanitation, he says some new factor has been introduced & caused a wider dissemination of the disease & he adds that these new factors are none other than Brain excitement & fatigue, which in the case of children are mainly associated with the processes of education."

From what I have seen of this disease in Practice I am inclined to adopt the views of "Sir Thomas Watson expressed in his "Lectures on the Practice of Medicine" & follow out a moderately active line of treatment, as I consider it affords some slight gleam of hope & an almost certain relief of some of the distressing symptoms. However should this plan not be followed by

any good results, as will in spite of all treatment majority of cases will end fatally; we at anyrate do something that may save ourselves from reproaches afterwards, & perhaps prevent the painful reflections in minds of patients friends, that everything was not done that might have been done.

In the stage that disease has reached when case comes under our notice the Inflammatory factor is usually predominating feature in the case, & our efforts should be directed towards lessening or checking this process. & if we can do so it is just possible that we may be able to tide over a crisis, & then our efforts would be directed towards the tubercular element, with the view of trying to check or promote the retrogression of the tubercular deposit if this is at all possible.
It is important to remember that this disease as a rule occurs in those

with debilitated constitution & that lowering measures are not well borne, & require careful watching. In present case, alterative powders were given at first, as tongue was coated with yellow fur indicating considerable gastro hepatic disturbance. Purgatives were negatived on account of suspicion of Enteric Fever; Hydrarg c Creta was given afterwards. Potass Brom & Tinct Hyoscyamus were also prescribed with the object of diminishing Cerebral hyperaemia relieving pain & allaying irritability.
When drowsiness set in on the 14th Bromide was omitted & Iodide of Potassium given.
Local applications:
Cold lotions applied constantly to head at early stage — but as stupor set in & stage of pressure on Brain was marked, Fly Blisters were used & persevered with, blistered surfaces on Scalp were kept open & discharged large quantity of matter, & it can scarcely be doubted that considerable derivative effect was obtained by the Keeping raw of the blistered surfaces on this Child's head.
She was well fed during whole course of illness

with Milk, White of Egg. Cream.
Raw Beef-tea ℞ii

1/2 gr. Hydrarg c Cretâ was given on the 14th night & morning. & continued to end of case.

The above plans of treatment is that which I have now come to adopt in cases of Tubercular Meningitis, & very frequently also in suspected cases. This system was followed out in the 3 cases of recovery recorded in this Paper. & more or less in all the other cases.

This method of treatment I follow out not altogether as matter of routine practice, or because it does not matter much what treatment is adopted in this disease; but for the reason that I believe it

to be the best, & more likely to be followed by occasional good results than any other,

Each particular case coming under our notice will as matter of course require to be treated on its merits, according to age, constitution, &c of patient, bearing always in mind that as far as possible patient must be well supported with nourishment.

In early stage I prefer to begin with "alterative powders, usually containing small doses of P. Rhei Hydrarg c Creta & Sodae Bicarb, as tongue is usually very much coated, & abdominal secretions very much disordered. By correcting this condition of alimentary canal we get the stomach & bowels into better order, so that we can push the medicines we intend to use for the Cerebral affection with more hope of success.

In some cases it may be advisable to begin with purgatives, Calomel & Jalap being the best, but large powders usually increase the vomiting, & I prefer to begin with alterative powder till stomach is a little settled. Using at beginning frequently, injections per Rectum, which in some cases has good effect in diminishing vomiting

with regard to the use of Potassium Bromide & Iodide, these are time honoured drugs in the treatment of this disease, & have been highly recommended by many Authorities.
Bromide of Potassium is a drug of undoubted value in treatment of Tubercular Meningitis. it is given with the object of diminishing Cerebral hyperaemia, soothing pain & allaying irritability. From its sedative action on the Heart & Vascular System Bromide of Potassium is of great value in all cases of Cerebral Congestion accompanied with cerebral excitement.
Bromide of Ammonium I have also found very useful drug in these cases, it usually has good effect in relieving pain in head in early stage & is not so depressing in its action as the Bromide of Potassium, & smaller doses suffice.
Dr. John Brunton in "Glasg Med Jour" for 1872. refers to great value of Bromide of Potassium in Acute Hydrocephalus & report cases that have been cured or

benefited by its use.

M. Bazin in (Guy de Hospitaux 1865) records case in which Bromide of Potassium in large dose was successful in checking Tubercular Meningitis in a boy who at same time presented symptoms of Pulmonary Tuberculosis.

For pain & irritability of early stage of Tubercular Meningitis Bromide of Potassium in large doses is the most valuable agent we possess & no other drug so far as I have observed is to be compared with it.

Iodide of Potassium is another remedy that has been very largely used in treatment of this disease, by some observers it has been very highly praised, by others again it has been given up as useless. Some observers hold that it has special power over the effusion in this disease, others assert that it has no such effect only delays comatose stage to slight extent.

Notwithstanding the differences of opinion expressed regarding this drug, many undoubted cases of recovery under its use have been recorded. Drs Wm. Neumeyer J. Lewis Smith Meigs & Pepper report cases of recovery in which

Iodide of Potassium has been used, & recommend its use.

"Meigs & Pepper" in their admirable book on Diseases of Children, state "that there is no drug from which so much benefit may be hoped from as Iodide of Potassium, & they earnestly recommend that it should be faithfully tried in full doses when cases offer"

I am not disposed to look on all the reported cases of recovery in which this drug has been used, as cases of Mistaken diagnosis; & for this reason I have considerable faith in it, & have used it extensively & am inclined to place more reliance on it than on any other single drug.

I believe that the reason, or at least one of the reasons why use of both the Bromide & Iodide of Potassium is so often followed by failure, is that they are not given in large enough doses.

To be of any use in Tuberculous

Meningitis these drugs must be given in large doses.
Doses of these drugs I would prescribe.

Potass Brom.

1. yr. to 2 yrs. 5-10 grs. every 4 hours.
4 - 6 or 7 years. 15-20 grs " " "

Potassii Iod.

2 to 3 years. 5 grs. every 5 or 6 hours.
4 to 7 " 7½-10 grs " " "

in proportion to age,
smaller doses I am convinced are useless.

With regard to use of direct Sedatives as Chloral Hydrate, or Opium for relief of pain. I class them together as being hurtful, I have no hesitation in saying that they should never be used where we have faintest suspicion of Tubercular Meningitis.

I have used chloral in this disease in 2 or 3 cases & in each case I have been sorry for doing so. No doubt they relieve pain by inducing narcosis, but this complicates our case, as it annihilates one of the diagnostic signs of great value, & makes it doubtful whether drowsiness is due to the drug or advance

of the disease, & so valuable time may be lost.
Mercury in form of Hydrarg c Creta I am in the
habit of using in Tubercular Meningitis & consider it
a valuable adjunct in treatment, & am convinced it
is of service in these cases & not likely to do harm.
In these cases there is sluggish action of Abdominal
organs in which action of Grey Powder is useful,
& from known effect it has on inflammatory
processes in general its use is also indicated
on account of the inflammatory element in
this disease.

Other reasons also influence me in using
Hydrarg c Creta in this disease; for instance,
In some of these doubtful Cerebral cases
occurring in children, there is suspicion
of Syphilitic factor, if such is really the
case then Grey Powder would have good
effect. Again in many of these
cases it may be doubtful whether the
lesion is actually a Tubercular one
or not, case may be one of simple
Meningitis it being very difficult to
say definitely. Then in these cases I

consider the Grey Powder would be useful for its action on Inflammatory element in case

In giving Grey Powder should be given in small doses, & frequently, continuing its use all thro' the course of illness.

Mercury in all its forms has had a very extensive trial at hands of many observers, & I am aware that at present time the balance of evidence is against it in regard to any curative value it may possess in Tubercular Meningitis.

For the reasons I have stated & from what I have seen of Cerebral cases in children during time I have been in practice, I am inclined to adopt use of this remedy judiciously.

Local Applications to Head.

During early or Inflammatory stage Cold applications are of considerable use, but care requires to be exercised in use of this remedy if we are to derive any benefit from it. Where there is great heat of head, with flushed face, & restlessness, they are indicated. Cold applications are only to be looked at in the way of palliatives

still in many cases they exert a very soothing effect, & relieve the headache which is so very characteristic of early stage.

Dr. Abercrombie was of opinion that application of Cold to the head was the most powerful remedy we possess in this disease.

Many different ways of applying cold have been resorted to by different observers.

Irrigation, ice in india rubber bag, cold affusion, &c. have all had their advocates.

Cloths wet with cold or ice water is good plan, keep cloths constantly on head, & as it dries wet it by means of water pressed out of sponge held some distance above the head.

Cold affusion is very useful method.

Cold compress apply over occiput & removed every minute or two

for 10 or 15 minutes is very useful in relieving pain & in inducing sleep.

For proper application of Cold & to obtain full benefit from this useful therapeutic agent it is necessary that head should be shaven.

Blistering with Emp: Canthar was used in the cases which I have noted as recoveries, & in some of the others. This is a time-honoured remedy in the treatment of Tubercular Meningitis, & I must confess that I never scarcely see a case of this nature but what I feel very much inclined to blister head. & if Patients friends do not raise any objections I usually try effect of Blistering. I am quite convinced in the cases of recovries that I have narrated in this Paper blistering contributed to the result obtained. Sir Tho Watson Considers Blisters may be of service[1]. In use of Blisters each case requires to be very carefully watched so as to try & hit on proper time for their application

1 Pract of Med Vol I page 412.

in Early stage during period of irritability, blisters are not to be used, as they would certainly increase the sufferings of patient, & might precipitate fatal result. The approach of comatose stage is the proper time for application of Blistering, & even when Coma is actually present they may be used.

Blisters may be applied over any part of head, but over Temples or Vertex are best situations, always avoid occipital region

It is best plan to use a "blistering fluid" such as "Smiths", & paint over selected part an area about size of Crown-piece, & in 2 hours or so apply warm Bread & Milk poultice this hastens vesication, blister should be punctured, & dressed as required. A series of small blisters is much better than one large one, as they kept up continuous effect, & heal soon if required. In some cases

by this means we may procure suspension of the coma, this being brought about by the continuous & gradual counter-irritation, & the derivative effect due to the amount of discharge which should be encouraged from the blistered surfaces.

By this process of blistering I am convinced that if we do no good we do not much if at all increase patients suffering, & patients friends have the consolation that Blisters have had a fair trial. for I have found in Practice that popular faith in blisters is so great in this disease, that in any case where I have not blistered head, I have been reproached by patients friends for not doing so afterwards. & I may state that I have had cases of Tubercular Meningitis under my care in which I have repented from use of Blisters, & afterwards regretted not doing so.

With regard to the advisability of Blistering Childs Head in state of Coma I may state that quite recently I had a case under my care which impressed me very much. it

was that of a child 19 mons old, who had been ill for about a Month, & been seen by 2 Medicine Men quite independent of each other, both had diagnosed it as case of Tubercular Meningitis

When I was called in child was in state of Coma, pupils dilated, face pale, eyes sunk, belly flattened & body much emaciated. brows wrinkled Pulse 146 very feeble.

I told mother that I considered child was suffering from Hydrocephalus & expressed gloomy prognosis. Examination of Chest gave no indications of pulmonary mischief.

She Mother then told me that child had been seen by 2 other Practitioners who expressed same diagnosis & prognosis. And at first she was ill for about a fortnight when she became Comatose, head was blistered twice, Coma passing away, & child became quite lively, & appeared to be getting better

till about 2 days before I saw her, When she had some twitchings of muscles of face, & then became comatose again.

I advised Blister to head which Mother was very anxious to put on as it had done her so much good before,

I saw her in 2 days again, Child was then quite sensible, coma having entirely disappeared

8 days after child was still living & appeared to be getting better — After this I saw no more of the case.

The plan of treatment sketched out in preceding pages is that which I think offers only promise of any good results at all, & is that which from observation & reading I have come to have considerable degree of faith in.

purgative or alterative powders at early stage afterwards Hydrarg c Creta might - tinctures in small doses.

Bromide & Iodide of Potassium in large doses early in the case, & persisting in use of Iodide, & omit Bromide as the stage

of Stupor makes its approach.
Cold applications to head in early
stage, thoroughly & assiduously applied.
Emp. Cantharides, used as stage of
insensibility comes on, & repeated if desired.
Patient to be well fed & nourished
in every possible way throughout the
whole course of case; if stomach
will possibly retain food, give it
frequently in small quantity.

One very important reason that
weighs with me in making the
above plan of treatment to a
certain extent a matter of routine
is, that I have seen cases repeatedly
in children in which the symptoms
present were almost identical with
those found in early stage of
Tubercular Meningitis; & had I
not known Family History I would
most certainly have considered them
Cases of Tubercular Meningitis

three were cases in which I knew a Syphilitic taint existed, they were put on this system of treatment which I have recommended & they recovered perfectly

Knigs, Case page 419

Whitmeths, Case page. 441. are cases of this kind.

= A Case is referred to in the "Medico-Chir. Review" for 1876. Vol I. page 491. Which presented all the classical symptoms of Tubercular Meningitis, but which proved to be one of Congenital Syphilis, & patient recovered perfectly under use of Mercury.

Sir Thomas Watson. Pract of Med Vol I. 411. refers to this point regarding Syphilis & Acute Hydrocephalus

"Knowing how many wretched children come into the world deeply marked & damaged by this Syphilitic inheritance, it seems to me not improbable that some cases of "Acute Hydrocephalus" may have their root in this transmitted taint"

In Tubercular meningitis the pulse is as a rule very characteristic, in most very cases the slow, intermittent pulse was present at some period or other during course of the case, usually during 2nd stage.
in this case of Semple's the pulse was slow & intermittent during period of stupor, before Coma became very marked; during time pulse was slow periods of restlessness alternated with stupor, & when coma became very marked pulse became very frequent.
In Speir's Case (page 163) pulse was also slow just at beginning of Comatose stage, afterwards becoming very rapid.
Slow pulse at beginning of stage of coma also observed in case of Hydrocephaloid disease recorded at page 487.
Dr. Wyatt. Essay on Dropsy of Brain, lays great stress on Characters of Pulse in Acute Hydrocephalus, & divides the disease into 3 stages distinguished from each other by the characters of Pulse. 1st stage, quick pulse 2nd " marked by slow intermittent or irregular pulse.
3rd " stage very rapid pulse: The Pulse as described by Dr. Wyatt I have found almost invariably present in most of cases of tubercular Meningitis I have seen.
"Reynolds System of Med" Dr. Lee "considers pulse little to be trusted as certain sign of stage of disease".

Case XV

Group 2.



"Meningitis in a child - with symptoms resembling the Tubercular form. Recovery."

Robert King aet 3½ years. June 1884.

(This patient is brother to Annie King whose case is recorded at page 215)

he was strong healthy child up till this illness, he is muscular & well-developed with fair-hair & red cheeks. When 2 or 3 months old he was under treatment for Condylomata at the anus & sniffles which disappeared under use of Hydrg c Cretae &c. up till he was about 8 or 9 months old he was troubled with Skin eruptions which disappeared under treatment with Grey Powder, Mrs parents also stopped of their own accord too soon: as he appeared to thrive very well. Has always had a defect in his speech, & was long in beginning to speak, when he spoke he didnt name the words properly, speech was very thick as if tongue was sticking to roof of mouth, or too big for mouth.

3rd June when I saw him today his Mother told me he had not been well for about a week

was very peevish, feverish, & refused his food, wanted to be nursed at fireside constantly, & cried very much if Mother put him down out of her arms. This being very different from his former disposition.
Head is very hot, & cheeks flushed
Tongue moist covered with yellow fur, red at tip.
bowels moved once in 2 or 3 days, his regular way for some time back.
Vomiting occasionally for the last 2 or 3 days, but this not very striking symptom as he was taking very little food.
Complained of pain of head a good deal.
Pulse. 140 regular.
Temperature 102°. No coughs, or chest symptoms.

After examining child very carefully, & making enquiries at his Mother regarding state of his health for some weeks back, I may say I was in considerable doubt as to diagnosis. I was inclined to favour idea of Gastric or Enteric Fever, but bearing in mind the fact of his sister dying of Tubercular Meningitis, I was determined to watch this case closely & also observe carefully the effect of remedies.

And in the meantime I did not state anything definite as to diagnosis. (The Parents referred at this time to the death of their last child from Tubercular Meningitis, & very kindly said that they had every faith in my judgment, & wished me to give treatment a fair trial in every way if I thought there was any fear of "Hydrocephalus").

Family History.

Father living & healthy age. 32 or 33 years. about a year before this child was born he was under my treatment for some time for Syphilitic Sore-Throat, Ulcers of Tongue, & Psoriasis.

Mother living, has Scrofulous cicatrices on Neck.

1 Brother died when 10 months old from Bronchitis

Advised hair to be cut short, & head to be Kept cool, & prescribed an Acid Mixture with Alterative powders.

For the next 2 or 3 days there was little change in childs condition, he continued very irritable, was restless & very troublesome in every way. Scarcely slept any night or day, took his

food & medicine regularly.
Vomited 3 or 4 times or an average every 24 hours.
& several times he had distressing fits of retching
when nothing came up.

5th " 9. pm.

very restless & ill-tempered today, complains very
much of the pain in head,
face pale, & eyes much sunk
Pulse 140, Regular.
Temperature 101°.

6th "

lying on back today, rolling head very much as
if in pain.
Cheeks flushed, & head very hot.
Tongue cleaner, still vomiting a little.
bowels not moved.
Pulse 140.
Temperature 100°.6.

I examine body very carefully for any
eruption of Enteric Fever but no spots to be detected.
& no diarrhoea, or iliac tenderness.
Ache cerebral easily produced & persistent.
From Childs general condition today I give

up my suspicion of Enteric Fever, & am inclined to consider that lesion is Meningeal probably of a tubercular nature: When asked by Parents my opinion of case today, I told them I was afraid he was becoming affected in same way as their last child. On hearing this they were very anxious for me to Blister the Head freely, just in fact what I intended doing.

7th Pulse 90 intermittent
inclined to sleep a good deal today
still vomiting occassionally, taking food well,
no motion of bowels for several days.
Pupils dilated.
As I considered the drowsiness today due to advance of the cerebral disease, I determined to blister head.
Ry Blister 2 x 2 painted behind right ear.
To have 5 gr Potassii Iod. every 5 or 6 hours in water & 1 gr Hydrarg Chlor with ½ gr. Pulv. Rhei night & morning.
To be well fed at frequent intervals with Milk & Beef-tea

8th "
Blister has acted well, & contained large quantity of Serum. was very uneasy during the night, this is

probably due to irritation of the Blister — but he is certainly not so drowsy today as he was yesterday.
Tongue white & moist, bowels still confined
Pulse 80, intermittent
Temperature 100°.
pupils rather dilated, but act freely.
he prefers to lie in bed with head turned from the light & when asked by Brother if his head is sore, he puts up his hand & rubs it

10th

Had another Blister painted on left side of head last night, this has risen very well, but he was very restless during the time that elapsed before it had fully risen.
2 or 3 times during the night he started up frightened like & gave a loud scream, & put hands up to head.
Head very hot today, & eyes much sunk, pupils much dilated — does not make any answer when asked if he has any pain in head.
Pulse still slow & intermittent.
Temperature 100°
Tongue clean, as bowels not moved for 5 days to

have an enema of Soap & Water.
belly flattened & soft.
Iodide of Potassium Mixture with the Grey Powders
to be continued: & to be well fed.

11th

Very dull & drowsy today.
lies sunk down in bed with head bored back
into pillow. Head very hot in occipital region
& it evidently causes him pain when it is moved
or lifted off the pillow
Pulse 100. irregular.
Temperature 99°.6.
Pupils dilated, eyes dull & blood shot.
Vomiting entirely ceased. bowels moved with Injection.
Blister to be painted on Vertex.

12th

Has been very restless & uneasy since blister
was painted on head yesterday, did not sleep
any last night. & had return of the "Screaming
fits" at times there was considerable low
muttering delirium, but as he does not speak
very well at best Mother could not make anything
of what he said

Head very hot. & face much flushed.
Pulse 120. irregular.
Temperature 100°
Blistered surfaces on head are being dressed night & morning with "Mercurial Ointment".
Prescribed. ℞ Ammon. Brom. 3ij
Potassii. Iod. 3j
Syr. Simp. 3iv
Aq ad 3iij. ft.
Sig. 3ij every 5 or 6 hours in water.
Grey Powders to be continued.
To be well fed with Milk. White of Egg & Beef-tea.
14th
Since evening of 12th has been lying in state of Stupor with half closed eyes, & slow regular breathing.
pupils contracted & respond fully to light.
Milk swallowed slowly & with difficulty.
Pulse 100 irregular.
Temperature 99°.8.
belly flattened, & child altogether much spent.
Chest carefully examined to day but no pulmonary mischief to be detected. & has no cough.
15th had slight "Convulsive fit" this morning

affecting principally left side of face, but there were also slight spasmodic twitchings of muscles of limbs on same side, lasting for half an hour. When I called today there was still some twitchings of the facial muscles, but he was in state of Stupor lying on side with eyes half open.
breathing very slow & sterterous.
pupils widely dilated.
no attempt at swallowing. anything put in mouth just lies in side of cheek.
Pulse 130 irregular
Temperature 100°.

Another Blister to be painted on head, & blistered surfaces to be kept open with Bread & Milk poultices.

This Blister acted well, but for next 3 days he lay in state of Stupor, with low irregular breathing, & flushed cheeks.
at times there were twitchings of muscles of left side of face.
During this time pulse 130-140.
Temperature 99°.8.
No attempt at swallowing
Urine passed involuntarily.

19th There was return of restless & uneasy state again last night, & he is now lying rolling head on pillow & moaning now & again.
On trying him with milk he is able to swallow altho' very slowly
Stupor not so deep today, uneasy movements & tossing of head are evidently due to irritation from blistered surfaces on the head.
Ammon Brom has been omitted from his medicine
She is now taking 5 gr doses of Potassii Iod:
every 5 or 6 hours.
From this date the Stupor passed off gradually, & he began to take food very well.
by the 23rd Stupor had entirely disappeared.
Iodide of Potassium & Grey Powder to be continued
& to be well fed.

In a few weeks he had quite recovered his usual health & spirits, took food well, & he soon improved in flesh & strength.
During the illness altho' he looked spent & ill the emaciation was not by any means striking
the soon made it up when he began to improve.

Speech remained much the same as before illness.
He was put on Syr. Ferri. Iod. & Cod liver oil
for considerable time

August 1885. 14 months after above illness
patient has improved very much in appearance
has grown bigger in every way & has not
had any return of Head symptoms
Speech has improved somewhat, as he is now
able to pronounce words that he never attempted
before.
Syr Ferri Iod. Cod Liver Oil &c had been
continued now & again for considerable time.

Case XLVII

"Aphrungitis in a child 21 Months.
Symptoms resembling the Tubercular form.
Recovery."

Annie Whitesmith, aet 21 months. 1884.

This child was brought to my Surgery about end of September, troubled with Vomiting, Constipation, extreme restfulness, & wasting.
Had been failing very much for some weeks, & she looked very much spent, face was pale & worn & had an aged expression.
eyes were dull & injected.
Tongue moist & covered with yellow fur,
Vomiting everything she takes, almost as soon as swallowed, & with very little water.
bowels not moved for some days.
Teething was thought by Parents to be cause of her illness, but on examining gums there are no signs of dental irritation, what teeth she had have all decayed & only a few blackened stumps remain in the gums.
she is very restless & sleeps none night or day, but she is constantly Crying, & wants to be nursed.

at times she takes fits of rolling head, & is continually boring fingers into ears or rubbing head with hands.
Head very hot, hair scanty over occiput.
Ant. fontanelle open & prominent.
breathing a little quickened, but no cough, & chest examination does not indicate any lung disease.
Belly soft, but not flattened.
Pulse 140, full & soft.
Temperature 102°.6

When about 2 months old she was under my treatment for "thrush", mucous patches round anus, & other syphilitic manifestations.
under use of Grey Powder & local treatment the Syphilitic manifestations entirely disappeared.
Parents had discontinued treatment of their own accord, & I saw no more of her till she was brought to me to be vaccinated when 6 months old.
At that time she did not look very well & I advised postponement of Vaccination, this however did not satisfy Parents who had her vaccinated by some other Medical Man.
Two or Three months after that she was

brought back to me again, Vaccination marks had not healed & child looked very ill, characteristic cracks or puckerings at corners of the mouth, & eruptive on limbs being quite distinctive of Syphilitic taint again. She was again put on treatment as before, arm healed readily, & other signs disappeared.

I saw no more of child till present illness. From time I had seen her last up till few weeks ago she had been thriving very well, & improved much in the body, but face always retained the aged expression I have already mentioned.

A few weeks ago she began to fail, & became very irritable & sleepless, Parents considered this was due to back teeth, & she was brought to me on account of the troublesome vomiting, & constipation.

Family History.

Father living & in good health.

was under treatment for Syphilis, about end of 1881 & beginning of 1882.

Mother living & in good health at present time. When 4 or 5 months pregnant with this

child I had her under treatment for Sore-Throat ulcers on tongue Skin eruption - which disappeared under Anti-Syphilitic treatment.
1 Brother age 4 years living & in good health.

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My diagnosis at this time was "Gastric disturbance" causing "Cerebral irritation". Child was usually allowed to have "run of the table" in way of food & tongue was dirty.

Prescribed following mixture & Powders.

℞ Acidi. Nitro Hydrochlo. 3ij/
Mist. Hyoscyam 3ij
Glycerini 3iv
Aq ad 3ij. M.
Sig- 3j every 5 or 6 hours in water.

℞
Pulv. Jalapae gr. 18.
" Calomelanos gr. 3 M.
Ft pulv. et div in pulv. 6.
Sig- One night & morning.

28th Sept. still vomiting very much.
Very fretful, crying & rubbing head with hands

continually.
Head very hot, face pale & worn, eyes very much sunk
Pulse 140. full, soft.
Temp 101°. 6.
Tongue very much furred.
bowels not moved, to have injection per rectum.
Linseed meal & mustard poultice to be applied
over Stomach.

1st Oct.

restlessness still very distressing,
rolling head constantly, throwing it backwards &
rubbing it with hands.
On account of the restlessness it is quite impossible
to apply cold applications to the head.
As Vomiting still continues, everything in way of
food to be stopped, & only teaspoonfuls of Barley
water to be given occassionally.
Pulse 146, thready.
Temperature 101°. 2.
body very much emaciated.
Jache cerebrale may easily be produced on trunk
bright red spot on left cheek.
Bowels moved, stool clayey & very offensive smell.

prescribed mixture containing.

℞ Potass Brom 3ii ℔

" Iodidi gr. 60

Mist. Hyoscyam 3ij

Syr. Simp. 3iv

Aq ad 3ii. M.

Sig- 3j Every 4 or 5 hours in water.

2nd Oct.

She has been a little quieter since last night-

has had some sleep the first for about a week, during

sleep breathing very low & sighing.

Vomiting rather less.

Tongue dry & red. Very thirsty.

Bowels moved today.

face much pinched & anxious.

eyes sunk with dark circle round them.

Pulse. 120 irregular.

Temperature 101°

3rd

since last note she has been very quiet-

great languor & prostration, lies sunk down in bed &

takes no interest in surroundings.

breathing low & sighing, & takes turns now & again

Is rolling head wearily on pillow, & moaning.
breathing regular & quiet, no cough & expansion of chest again today does not furnish any sign of lung mischief
takes anything in way of food or drink that is given her very greedy.
sleeps fairly well during night, but there is sometimes movement of jaws as if chewing or eating something.
eyelids half closed, eyes dull & glazed.
Pulse 130 irregular.
Temperature 100°
Bromide of Potassium omitted from her mixture today, & is now having 5 gr of Iodide of Potassium every 6 hours. along with 1 gr. Hydrarg ℂ Creta night & morning —

8th "

since last note on the 5th " child has been in same dull languid condition, if anything this state has become more marked, in fact the condition today is almost one of stupor, lying quiet down in bed on her side with eyes firmly closed, no moaning, but now & again there is long drawn sigh. There is also noticed today

a new feature in the case, namely, rigidity of muscles of arms & legs, but especially in the legs, feet being extended, & muscles of feet & back of legs being tense & very hard.
Sensibility is diminished in legs as compared with the arms.
Bowels have been moved regularly.
Tongue red, & dry. Vomiting entirely ceased.
Pupils dilated equally.
Pulse 100, intermittent
Temperature 100°.4.
Facies cerebrale may be produced on body or forehead, & persists for considerable time.

I was now convinced in my mind that this was Case of Meningitis of the base, with probably a Syphilitic factor in the case, & advised perseverance with the Medicine.
(Iodide of Potassium & Hydrarg. c Creta)
To be well fed with Milk, or "Mellin's Infants Food.
Fly Blister to be painted behind right ear.
6th Blister applied yesterday, has acted

but caused no evident irritation, another Blister to be painted on opposite side of head.
Child in same drowsy state as noted yesterday.
Eyes half closed.
Pupils dilated equally.
Tongue clean & moist today.
Takes food well.
Rigid condition of muscles of arms & legs noted yesterday has almost gone, but still a little extended & dorsum arched.
Pulse 110, regular
Temperature 100°.4.
To be well sponged over whole body with hot water & mustard night & morning.

12th "

Child continued in drowsy languid condition up till today, a third blister had been applied on Friday yesterday, this acted very well, & is the first one that has appeared to cause her any annoyance as she was very restless & uneasy last night.
Today she is much brighter, & inclines to take a little interest in her surroundings.

& taking her food very well, & bowels are moved regularly.
Blistered surfaces on head, have been kept discharging with Bread & milk poultices.
Rigidity of legs has now quite disappeared.
Pulse 120 irregular
Temperature 99°. 8.

12th 9. pm.

This evening stupor came on which gradually deepened into degree of coma, which continued till the 14th when it passed off gradually, After that she began to improve, & as she took food well, her usual health & spirits returned. In about a fortnight the blistered surfaces were quite healed, & there was no return of head symptoms.
Syp Ferri Iod. was prescribed, & she was kept on this for considerable time, & she improved very much & gained in flesh.

At end of 1885. Child still living & thriving very well, no return of any syphilitic symptoms or Head mischief.

Case XXIV

## Meningitis following Pertussis.
## Convulsions - Coma - Death.

Jeannie Semple. aet 15 months. 1884.

This patient was sister of Janet A. Semple whose case is reported at page 349. as recovery from Tubercular Meningitis.

The case is not as fully reported as I could have wished as I was not in constant attendance all thro' the illness, & only saw her occasionally, as I was interested in case seeing I had attended her 2 sisters, one of them being case I refer to above, the other sister also suffered from same disease but died: And I have introduced this case here for purpose of comparison

I had her under my care on several occasions previous to this illness, past history being as follows: Was a healthy looking child when born, but when about 4 or 6 weeks old began to be troubled with "Snuffles" & soon afterwards mucous patches appeared at the Anus. with other Syphilitic manifestations. These disappeared under use of Hydrarg c Creta, & Calomel dusting, & she soon improved much in health & appearance.

Family History in 1881.
detailed at page 351.
Father living subject to Chronic Bronchitis.
was under treatment in 1882 for
Syphilis
Mother died of Pneumonia in Dec 1885.
1 sister died of Hydrocephalus at age
of 18 months.

The next time I saw her was when she was about 8 months old, she had been vaccinated but the marks only healed with difficulty after a long time. At this time she was very much wasted, skin & muscles on limbs being soft, & very flabby.
Face was small & withered, with the characteristic puckerings at corners of mouth & alae nasi seen in Syphilitic children.
Tongue red & furred, bowels very irregular & motions of very offensive smell.
Appetite voracious.
Altogether at this time she looked the very picture of ill health.
She was put off Grey Powders at first, & then on a mixture of Ac. Hydrochlorici dil & Tinct. Cinchonae, & after a time improved very much.

I did not see her again till present illness 13th Oct. had been ailing for 8 or 10 days with very persistent vomiting, & costiveness, & great irritability. I was informed that since I had seen her last she had been very

ill with Hooping Cough; she has short cough at present time, but spasms of Pertussis has entirely disappeared for some weeks.
She is now considerably emaciated, Skin on the forhead wrinkled, eyes sunk, & face has very pinched & aged expression.
Takes food very greedy, but vomits after almost every thing she takes, this is thought nothing of as she has been vomiting almost every day for some months back.
Tongue moist & covered with white fur.
Considerable degree of pain in head is indicated, by the heat of head which is very great, & keeps constantly moving or rolling it slowly from side to side.
Restlessness & fretfulness extreme, crying continually "her mouth never closes" her Mother states night or day, & sleeps none.
There is evidently considerable degree of cutaneous hyperaesthesia as whenever she is moved in any way crying is much worse.
Pulse 80 irregular.
Temperature 102°.
Examination of chest does not detect anything

further than a few Bronchitic rales, & there is no comparative dulness either anteriorly or posteriorly over any part of Chest.

I may state that parents consider that child is suffering from Weakness left by the Pertussis.

Medicine prescribed was Bromide of Potassium Mixture & Grey Powders.

When I saw her again on the 19th inst about a week after my last visit, she was if possible more spent, & crying & restlessness certainly not any better.

For some days past she has been taking turns of "screaming out" as if in extreme agony, & at these times she rolls head very much,

In fact the crying or low wailing, & slow moving of the head never ceases even for a moment, & she sleeps none

Face haggard, & eyes very much sunk, with dark circle round them, pupils normal & equal altogether the characteristic physiognomy of Cerebral disease is very pronounced.

Vomiting & Costiveness still continues.

pulse 140, small & feeble.
Temperature 102°.6.
Jactic cerebrale may be elicited over chest.
Today there is noticed rigidity of muscles of feet & legs, this most marked in the feet which are forcibly extended, & tendons so dorsum rigid.
over the buttocks there are some spots of an eruption to be seen, varying in size from about size of split pea to that of a threepenny piece, they are few in number not over a dozen in all. circular in form of a dusky red colour, with delicate coating of fine silvery scales.

Two or three days after this, spasmodic twitchings of muscles of left side of face set in, there was also oscillation of eyeball of same side.
These twitchings continued more or less violently for 4 or 5 days. when they culminated in fit of general convulsions child being quite unconscious. "Fit" lasted for nearly 12 hours. & when it passed off she was in Comatose condition & continued in this state for 2 days when she died— (Duration of illness about 3 weeks.).

Remarks on Cases in Group 2.
(Craig's Watermelon & Semple's)

The cases included in this group were diagnosed as cases of "Basilar Meningitis" & I consider Hereditary Syphilis was an important element in causation in each of the cases.
The 3 cases resembled each other very much in their mode of onset, symptoms, course & duration, & in their clinical features generally they corresponded in very striking manner to usual run of cases of Tubercular Meningitis.
Family & Personal History of Syphilis in each of the 3 cases was very similar.

In each case there was a premonitory stage marked by failing health, & wasting in flesh. This was most noticeable in Semple's case, & no doubt to certain extent accounted for by the Pertussis from which she suffered for nearly 2 months before onset of Cerebral Symptoms. but

Pertussis had quite disappeared for some weeks before cerebral symptoms set in.

Each case was marked by stage of irritability followed by one of diminished Sensibility. the latter being most marked also in Semples case.

Of the 3 cases 2 recovered perfectly, (Kings & Whitesmiths). & 1 died (Semple).

Cases such as these are of not unfrequent occurrence in general Practice especially amongst the lower classes in large towns where we have bad hygienic surroundings, & improper feeding, added to the inherited taint of Syphilis.

They indicate very forcibly the necessity of very careful enquiry into Family History, & also Personal History: In each of these 3 cases the families were well known to me, & I was familiar with both Family & Personal history in all the cases, & I had attended Parents & Patients in each instance for Syphilis.

So closely did these cases resemble in clinical features Tubercular Meningitis, that had I not known previous history personally, & the patients died, I would almost certainly have certified deaths as from Tubercular Meningitis

From what I have observed in Practice I am convinced that some of the cases reported as recoveries, or certified as deaths from Tubercular Meningitis, are neither more or less than cases of the nature of those I have reported in this group. That is cases in which we have a Basilar Meningitis in Child tainted with hereditary Syphilis the Medical attendant perhaps not knowing the Family is probably ignorant of the Syphilitic history.

Robert Kings Case.

During course of my attendance on this patient I was rather doubtful as to the diagnosis, at first I was inclined to look on case as one of Enteric Fever but as case went on symptoms of this disease did not develop, & the head symptoms becoming more pronounced the idea of case being one of Gastric or mild Enteric Fever was negatived. Absence of Cough or Chest symptoms excluded idea of pulmonary disease.

as the case progressed the restlessness, slow & intermittent pulse, drowsiness, convulsions, stupor &c presented very much the aspect of Tubercular Meningitis, & I was very much disposed to look on case as Tubercular in its nature.

The Family History to certain extent gave a degree of support to this view, a sister (Annie King) (page 215) having died from Tubercular Meningitis. However after the child recovered I came to the conclusion from consideration of all the features of the case that illness was due to Basilar Meningitis with probably a Syphilitic element in the case.

I consider it was not a case of Simple Acute Meningitis, because that disease is usually ushered in with very sudden & violent Symptoms, such as Convulsions frequently recurring, intense febrile excitement (103° to 104° temp), drowsiness strabismus, unequal pupils &c.

In present case there was no history of running Ear or injury to Head. Family History in this instance left

considerable room for speculation.
Father had Syphilis one year before this child was born.
Mother had Scrofulous cicatrix on the neck.
1 sister died from Tubercular Mesenteritis
(her case reported at page 215.)
Patient himself had been under treatment
on several occasions for Syphilitic
manifestations up till time he was
8 or 9 months old, they yielded readily
to treatment, which was always discontinued
too soon by the Parents.

Here in this case we had Syphilitic &
Scrofulous factors in family history to
deal with, & point to be determined
was what share if any these factors
had in Childs illness.
Diagnosis requires to be settled by review
of Symptoms & case as a whole, & I
must admit that they corresponded
so much with Symptoms I observed in
case of his sister who died from Tubercular

Meningitis, that had case ended fatally I would certainly have looked on case as one of Tubercular Meningitis.

But it was the fact of personal syphilitic history that predisposed me to consider that Syphilis had something to do with the Cerebral lesion. & Treatment followed out I have no doubt contributed to favourable issue of the case.
The subsequent history of Patient confirmed I think Syphilitic theory, as he recovered perfectly. Under long continued use of Syr. Ferri. Iodidi. Cod Liver oil &c he gained in flesh, & improved in every way. & had no return of head symptoms.

On the other hand had lesion been of a Tubercular nature, he would probably not have recovered, or if he had he would not have improved as he did, some weak point would have remained.

Absence of Cough & Chest symptoms was to certain extent against Tubercular theory.

Annie Whitesmiths' Case

Symptoms present in this case also pointed to Brain as organ at fault.
There was no cough, & examination of chest did not reveal any indications of pulmonary disease.
At first I was inclined to consider illness as due to gastric irritation, but as case went on the head symptoms became more pronounced, & the pecurring vomiting with Vomiting, & extreme irritability &c presented suspicions of Tubercular Meningitis.
Although the symptoms & course of case resembled very much what we find in many cases of Tubercular Meningitis, still there was complete absence of some symptoms usually present in that disease, such as convulsions, "cri hydrocephalique" &c, & there was also what might be termed a want of accentuation about some of the other symptoms present, sufficient to raise doubt

as to its being case of Tubercular Meningitis.
Pulse although noted as intermittent & irregular never was less than 100, & that only on one occasion, usually have much slower pulse than that in Cases of Tubercular Meningitis.
Stupor never became very deep, did not amount to profound coma usually observed in last stage of Tubercular Meningitis.
For these & other reasons I was disposed to attach considerable importance to Family & Personal History, & considered illness probably due to Basilar Meningitis with Syphilitic factor as in previous case (Knigs)
Patient had several times been under my care for Syphilitic manifestations & improved under treatment.
Treatment adopted was Blisters to head Potassii Iodidi & Hydrarg c Cretae, & under their use patient recovered.
Antisyphilitic treatment continued for length of time subsequent to illness, & child improved under it, & had no return of the Head symptoms.
The recovery &

clearing away of all symptoms of Cerebral disease was certainly against idea of case being of Tubercular nature. And I am quite persuaded that in this case recovery was due to the treatment pursued, & not in spite of it.

Jeanie Simplis case -

Here again in this case we find a precursory stage marked by failing health & wasting, this probably dating from attack of Pertussis, from which she suffered for about 2 months. Spasms of Cough had quite disappeared before cerebral ~~dis~~ symptoms set in. Invasion of Cerebral disease was marked by Vomiting, costiveness, & great irritability, & as case progressed the Cerebral symptoms became more pronounced,

The slow, irregular pulse, absence of sleep, & rolling of head, cutaneous

hyperaesthesia, rigidity of muscles of lower limbs, twitchings of muscles of face, preceding fit of general convulsions all pointed unmistakably to grave lesion at base of Brain.

Point to be determined was what was nature of that lesion?

Was it tubercular Meningitis following Pertussis? which occasionally occurs.

Or was lesion syphilitic in its nature?

The family history was source of perplexity, as there was both a syphilitic & tubercular element in it. Father was under treatment for considerable time for syphilis, about a year or two before this child was born.

Mother was said to have suffered from Hydrocephalus when a child.

1 sister died from well-marked symptoms of tubercular Meningitis.

another sister had tubercular Meningitis & recovered (Janet Semple's case page 349).

Patient herself had presented symptoms of hereditary syphilis which yielded to treatment.

Here we have combination of Tubercular & Syphilitic elements in Family History, & patient presenting manifest cerebral symptoms, to which of these factors was the lesion due?

I may here state that I only saw this patient 4 times, but so far as observed there was no paralysis at any stage of case up till coma set in, neither was there any squinting of ~~with~~ eyes observed. While I admit there was room for considering case actually one of Tubercular Meningitis following Pertussis, I must state that I incline to the opinion that lesion was connected with Syphilis in some way. because of Syphilitic history in case, & also on account of the resemblance case bore to the 2 preceding cases.

(King's & Whitemiettes).

Patient I believe was not continuously under treatment from time Cerebral symptoms set, & partly for this reason & also probably owing to the broken-down

Constitution of child altogether, & previous attack of Pertussis I attribute non-success of treatment.
It may also be remarked in this connection that this was youngest patient of the 3 in this group.

Cases such as the 3 I have included in this group are of not unfrequent occurrence: Quite recently I had under my care a child age 16 months who died comatose after an illness of about 18 days. She was puny, miserable looking object, skin dark & flabby, & an old withered face. At beginning of her last illness there was slight pyrexia, with manifest Brain symptoms, & when I saw her about a fortnight before she died; she was very irritable, vomiting, & costive in the bowels. Pulse at same time was slow & intermittent, irritability & restlessness continued for some days, then she got drowsy, this was followed by Convulsions & Coma which continued till she died.
Some Months before last illness, she was under treatment for a time for Syphilitic manifestations, "Cruffles" mucous patches round anus, skin Eruptions &c.

This case resembled very much in its course Kings Whitesmiths, & Semples cases, & I have no doubt Syphilis was cause of the broken down constitution, & predisposed to the Meningitis, which was probably excited by irritation of teething. At page 417 I have referred to a case in Medico-Chir Review which presented all the classical symptoms of tubr Meningitis, but which proved to be one of Congenital Syphilis. Patient recovered perfectly under use of Mercury. Sir. T. Watson in Pract of Med vol I, says "that it seems not improbable that some cases of Acute Hydrocephalus may have their root in transmitted Syphilitic taint. That case quoted from Medico-Chir Review & Sir T. Watsons opinion seem to me to support the views I have expressed regarding Kings, Whitesmiths, Semples cases.

It may be said that the absence of Post Mortem in Semples case & the recovery in Kings & Whitesmiths cases make it impossible to say with Absolute certainty what was exact nature of lesion in each case. I must say however that after careful observation of a number of similar cases in which Family History was personally well known to me, & after carefully watching effects of Treatment, I can come to no other conclusion regarding them, than that they were cases of Meningitis of Base, with Syphilis acting either as predisposing or exciting cause in each instance.

There can be no doubt that a form of Basilar Meningitis occurs in Infants in which tubercle plays

no part, in general practice we see cases now & again in young infants or even as children up to 2, 3, or 4 years of age, in which there is high temperature & manifest brain symptoms, there being every reason to exclude exanthemata, & lung disease; Child has been in failing health for some time, is very restless, head hot, vomiting & constipation, eyes sunk, & pinched face; irritability increases for some days, pulse being slow & irregular, child becomes dull & drowsy, & gradually passes into state of coma, which may continue for one, two, or more days, then child gradually recovers. These cases cause us considerable doubt & anxiety at the time owing to resemblance they bear to tubercular meningitis, & although it is not possible to say with absolute certainty which has been exact lesion present, still idea of tubr. meningitis has to be given up owing to recovery of Patient.

The names cerebral fever or Cerebral Congestion has been applied to these cases, but I am inclined to consider that Basilar Meningitis would more correctly designate them.

We not unfrequently meet with the above train of Head symptoms in Infants & young children, due to teething, weaning, gastric irritation, overloaded stomach, costive bowels, Worms, blow on head &c

Dr Whytt in "Essay on Dropsy of Brain" 1768.

states "that symptoms of no distemper resemble those

of Water in the Brain so much as those which arise from Worms in Stomach & Bowels. for with slow fever, he may have want of appetite, vomiting pains of head raving & convulsions."

Treatment adopted in Knigs Whitemitts & Semples Cases was by means of Hydrarg c Creta, & Potassii Brom & Potassii Iodidi, with the addition of Blisters to head in Knigs & Whitemitts cases. This plan of treatment being distinctly Antisyphilitic, I have no doubt contributed to the successful results in Knigs & Whitemitts cases: Blisters were not used for very obvious reasons in Semples Case, & I attribute failure of treatment to broken down constitution (Consequent on the Pertussis & Syphilis) being so very extreme before head symptoms set in. Child was not continuously under treatment, this also factor in failure.
During illness patients were well fed & supported with nourishment in every way.
With regard to Blistering I may say that in cases like the above where there has also been purging, I have seen good effects from small Blister behind the Ears. This probably acting by its effect on Vagus Nerve

Case XIX

Group 3

"Hydrocephaloid Disease – in a child of 10 Months. With paralysis & Coma Duration 15 days." Death

Baby Buchanan. Aet. 10. Months. August 1884

This child was brought to my surgery on the 13th Augst. Vomiting & purging being the principal symptoms. the was also very irritable. & her body was a good deal emaciated.

Diarrhoea had been going on for about a week or 10 days, & was thought by Parents to be due to irritation of teething, Gum over the upper incisors being red & swollen.

Had gone off her food & would take very little of the breast milk now, & what she did take was rejected almost as soon as she swallowed it.

Irritability & restlessness always worse at night. Head not very hot, with clammy sweat over the brow. Ant. Fontanelle sunk.

Face pale & pinched, dark line under the eyes, which are very much sunk.

Tongue red & glazed, bowels loose to the extent of 10 or 12 Motions in 12 hours, stools are of

dark clay colour, streaked with blood, & very offensive smell.

Pulse. 120. small, & feeble.

Temperature 100°. in Rectum.

Has always enjoyed good health, & appeared to thrive very well up till present illness, with the exception of Diarrhoea for 2 or 3 days when she was cutting her 2 lower incisors, this is the only illness she has ever had.

Father, living & healthy, has always had very good health, with the exception of Pneumonia of Right lung 3 years ago.

Mother is Stout flabby woman with very jaundiced complexion, suffers from Liver derangement & is frequently ailing with Bilious attacks. She is also subject to Bronchitis almost every Winter.

2 sisters living both healthy, 6 & 8. years.

1 Brother died at age of 6 months from "Hydrocephalus"

I lanced gums over upper incisors: To have Hot water & Mustard bath for a few minutes. Mustard & Linseed Meal poultice to be applied over Stomach & prescribed following mixture.

℞. Pulv. Spirtus Ammon gr. 80.
Mict Cinchonae 3ii
Spt. Ammon. Arom 3iiss
Mict. Card. Co. 3iss
Aq ad 3iii, M.
Sig. 3i every 3 or 4 hours in water.
Milk & Barley Water in small quantities frequently as sole diet.

14th Head cool, with clammy sweat over forehead.
Still vomiting a little now & again,
Medicine nearly all retained by stomach.
bowels moved 8 or 9 times within the 24 hours.
there is considerable thirst, & child has taken pretty fair quantity of the Barley Water & Milk.
Has been very restless & uneasy. & scarcely sleeps any, pale face, eyes very much sunk & dull.
Tache cerebrale easily produced on trunk, red blush may be produced on cheek with very slight pressure.
the rolling of the head, & the constant wandering of hands to ears & head, together with the facial expression would seem to indicate considerable degree of pain in head, that is impression conveyed to my mind from watching her for a time.

Pulse 140. thready, & easily compressed.
Temperature 100°.
Belly full & soft.
Prescribed draught containing Potassii Brom. grs.5
with Tinct Hyoscyam gtt.10. to be given night & morning.
To have a little "Mellins Infants Food twice or three times
a day.
Five drops Brandy in Water every 3 or 4 hours.
Milk & Barley Water to be persevered with.
Hot poultices to be kept over Stomach.

15th "

Child looks if anything worse today.
worn pinched aspect of face more striking.
she lies sunk on Mothers lap, with constant
pressure & straining of bowels, efforts at defacation continuous.
Bowels moved 9 or 10 times since Yesterday,
stools are slimy mixed with mucous, & contain
large quantity of blood.
eyelids half closed & when they are touched to
examine pupils. she makes no motion as if
she felt me opening eyelids.
Pupils are dilated & respond feebly to light.
Altho she refuses to take all food there is

almost constant retching but nothing comes up.
Tongue glazed, & dry.
Pulse 120, soft & irregular.
no distinctive "cri" but there is almost
constant crying & moaning as of one suffering
pain.
As she is in very low condition today, I increase
the allowance of Brandy.
& order injections of Starch & Laudanum. night
& morning.
& to have mixture containing.

℞. Acidi. Sulph. dil 3ii ℔
Mist Catechu 3iv
" Hyoscyam 3ij
" Opii gtt. 16.
Glycerini 3iv
Aq ad 3iv. M.

Sig. 3j every 4 hours in water.
16 ℔

Diarrhoea still very bad, stools consisting principally
of slime & blood attended with great amount
of straining
Vomiting has returned, belly retracted

Face presents very pitiful aspect. pale & pinched with eyes dull & glazed, & sunk deep down in their sockets. No cough, nor chest symptoms.
Head covered with cold clammy sweat & Ant.r Fontanelle much depressed, No heat of head.
the extremities are cold & have a bluish appearance
Acid Mixture to be continued, & small dose of "Castor Oil" to be given at bedtime
Whole body to be sponged over with hot water & Mustard twice a day & to be kept well wrapped up in warm flannels.

Although I have looked on this case all along as one of "Hydrocephaloid disease" brought on by exhaustion induced by Diarrhoea & Vomiting, I am now a little suspicious that there is a tubercular factor in the case. A consideration of symptoms now present, & patients general appearance presenting that idea to my mind.

Against this view there is the absence of anything in Family History pointing in that direction, & we find the very marked sinking of the Ant.r Fontanelle which every day is certainly becoming more depressed.

17th still restless & crying, constantly rubbing

head with hands, she is evidently suffering a good deal of pain. Sleeps none night & day. constant movements of arms, but no attempt at moving legs. tickling soles of feet, does not elicit any response. Vomiting has ceased again, diarrhoea still continues stools nearly all blood & slime

Taking food freely.

Pupils unequal, left reduced to pin point.

Pulse 100 intermittent.

Temperature 99°.8.

18th "

much quieter today, child in state of extreme prostration. Takes food freely, & inclines to doze & sleep.

Diarrhoea not so bad today, but there is still a great deal of straining.

Breathing slow & regular.

Tache cerebrale present.

Pupils still unequal.

Head hot in occipital region.

Pulse 100 intermittent

Temperature 100°.

Late this evening child passed into comatose state

pulse 140. very feeble

she continued in this comatose state all the 19th, on till the morning of the 20th when she died quietly.

Day before death pulse was 160.
Temperature 101°.
Body very much emaciated.

I am inclined to think that the poor quality of the Mothers Milk in this case had some connection with childs illness.

Remarks. The resemblance which Hydrocephaloid disease may bear to Tubercular Meningitis, & also the difficulty that may be experienced in diagnosis as between these 2 diseases is well illustrated in this case.
In early stage this case resembled Tubercular Meningitis with regard to the great irritability vomiting, rolling of head &c, & as case went on the resemblance to that disease became even more striking, the retracted abdominal wall, paralysis of motion & sensation, & the slow-

intermittent pulse just before advent of coma were all strongly suggestive of Tubercular Meningitis, & when to these symptoms, there was added the fact that a brother of patients was said to have died from Hydrocephalus, I consider there was good grounds for suspicion that I had of there being a tubercular element in the case

The diagnosis in case of this kind must be founded on a comprehensive view of case as a whole, & not on individual symptoms, which are liable to considerable variations even in Tubercular Meningitis

My diagnosis in this case was founded on review of the case as a whole, there was history of severe vomiting & purging, extending over a period of about 10 days before I was called in, & at, & child was in state of prostration: At my first visit

there was the sunken fontanelle, the cool heath, at least not any hotter than normal, the pale & pinched face, & severe & persistent diarrhoea which no treatment had any effect on.

The depressed fontanelle became more marked as case went on; these symptoms with the characteristic facial expression justified I considered the diagnosis made of Hydrocephaloid disease.

There were no Convulsions at any period of the case, breathing was quiet & regular, & there was an absence of anything at all approaching in its nature to the "Hydrocephalic Cri" Cry

Belly at early stage is noted as full & soft, but as case went on it became sunk, this no doubt is accounted for by the absence of flatus in intestines, & the constant tenesmus & diarrhoea.

The pulse in the 2 days before the Coma came on, is noted as 100 & intermittent this tho' a comparatively slow pulse for child

of this age, is not by any means as slow as we often find it for the corresponding age in cases of Tubercular Meningitis.
Altogether there was an absence of a something or other about general features of case that impresses on our mind the idea that it is a case of Tubercular Meningitis we have to deal with.

This case presents very well the 2 stages of Hydrocephaloid disease described by Dr. Marshall Hall Namely: (1) Irritability (2) Torpor.

Great care is required not to confound Hydrocephaloid disease with Tubercular Meningitis. Mistakes of this nature are not unlikely to occur, & it is of vital importance for the purpose of treatment that diagnosis should be made early.

Hydrocephaloid disease is much more amenable to treatment than Tubercular Meningitis, & if diagnosed early prognosis is very much more hopeful than in that disease.

Important points in the diagnosis are to enquire carefully as to Family & Personal History of patient, has child had any exhausting illness, bleeding, Vomiting or Diarrhoea, in recent instance Vomiting & purging had been going on for 8 or 10 days before I saw patient, & vital powers were reduced to a very low ebb. Personal history in this disease gives the Key to treatment, as the disease is one of debility & not of inflammation, & careful feeding, stimulants & perhaps Opium are required in treatment of these cases. As in this case the depressed fontanelle, cool head, pale pinched face & sunken eyes would confirm diagnosis

Diarrhoea is very frequent case of Hydrocephaloid disease, for reference to this Cause, Dr Vest in (Diseases of Children)

remarks "that there is no disorder in which the 2 conditions of considerable sympathetic disturbance of Brain, coupled with rapid exhaustion of Vital powers are so completely fulfilled as in Infantile diarrhoea, & in no other affection do we meet with such frequent & such well-marked instances of the supervention of the Hydrocephaloid disease."

Hydrocephaloid disease is not unfrequent occurrence, & as Dr Watt remarks it frequently follows diarrhoea. Formerly when Bleeding was more in vogue in treatment of acute diseases of children, Hydrocephaloid disease often followed in cases where the drain of the vital fluid had been excessive, this cause as a factor in the production of this disease has now to great extent disappeared. Hydrocephaloid disease is of frequent

recurrence amongst the lower classes, & where the children are neglected, & feeding is defective in quantity or quality, anything in fact that impairs general nutrition may be exciting or predisposing factor in its production.

I have frequently noticed this disease come on in children who have been reared by hand on Bottle or artificial foods. Children brought up in this way being very liable to be subject to chronic vomiting, diarrhoea, &c. which impairs the general nutrition of the body if continued over length of time.

Among the poorer classes where the Mother has to go out & work, we often find child fed both on bottle & at the breast, getting the Feeding bottle when mother is at work, & Breast during Meal hours & at night, children reared in this way do not thrive stomach is kept constantly overloaded, vomiting & irregular bowels are the result, & we have impaired digestion, & a state of chronic starvation going on, these children fall a ready prey to Hydrocephaloid disease, & rarely recover.

I have frequently observed that much the same thing occurs in some children reared on the bottle, especially where great care is not taken with the cleaning of bottle, & the procuring of good milk. Condensed milk being a great favourite with many people for the bottle because it's

Condiments is much used, but I am convinced that it is a very poor substitute for either Cows milk or the Breast. & is frequent source of defective nutrition in Infants. The present popular form of Feeding Bottle is I think the worst that could be invented, as it is almost impossible to keep long tube & teat clean or free of fermenting germs. & moreover it is too handy, teat is stuffed into Childs mouth constantly if it cries, & it is encouraged to drink as much as it can, the result of this being that stomach is kept constantly overloaded, digestion is impaired, bowels are disordered, & there is constant vomiting, & with the constant disturbance of cerebral circulation from frequent vomiting, & the low state of vital power from defective nutrition we often find Hydrocephaloid disease induced in bottle reared children. The old flat boatshaped feeding bottle with teat fixed on glass mouthpiece is undoubtedly the best for health of child, altho it is a little more troublesome, as it requires to be held in hand when child is drinking. Treatment in this case did not arrest or modify symptoms in the least, the great irritability of the stomach all thro the case preventing sufficient nourishment being given to support child, & worse the failing vital powers.

Case XX

Group 4.



"Simple Acute Meningitis in an Infant. Convulsions - Coma. Death in 48 hours."

Baby Millar aet 11 months. 1883.

She was seized suddenly with "Fit of Convulsions" in the afternoon of 20th Aug. When I saw her she had been working in the "fit" for about an hour.
She was quite unconscious & the convulsion was pretty general, but muscles of upper part of body were the most violent in their action, both eyeballs were in constant state of oscillation. Spine arched, head retracted, & drawn or jerked principally to right shoulder.
Muscles of arms & legs were rigid, feet were forcibly extended, & fingers firmly flexed in palms of hands.
eyes were very red, & the constant oscillations of the eyeballs caused most horrid squinting.
Head very hot, & face flushed.
breathing being rapid, & very difficult.
Pulse over 150 as near as could be counted.
"Fit" lasted for an hour & a half altogether, & when it passed off child was left in state of stupor.
Temperature 103°.6 taken in Rectum after fit had

passed off.

I was informed that she had been very sick vomiting a great deal, & very restless all day before the Convulsion came on, & Parents knew of no cause likely to bring on the illness.

She was a plump healthy child & this is the first illness she has ever had.

Has 4 teeth & there are no signs of any dental irritation, She is still on the breast & has always been well looked after both with regard to stomach & bowels, which have always been regular, till the last 2 days when she has become very costive. She has had no cough, & examination of chest does not show any indications of Pulmonary trouble.

No signs of any rash on body, & there is no knowledge of any Measles or Scarlet Fever in the locality.

Family History.

Father & Mother both strong, & healthy subjects.

ages 24 & 26 years respectively.

1 sister age 2½ years living, & in good health.

The weather about this time was very hot-

and I suspected this was case of Meningitis due to exposure to heat of the Sun. Child was usually taken out a good deal every day in a Perambulator, by a little Girl who acted as Nurse.

After fit had passed off, 4 leeches were applied to the head, & as near as could be calculated about an ounce or an ounce & a half of blood was abstracted altogether, including what came away after leeches were removed, they were applied 2 behind each ear.

2 grs of Calomel in Sugar was placed on the tongue, & Soap & Water injection given per Rectum.

10. pm.

No return of Convulsions, lying in state of Stupor, rolling head continually from side to side, & accompanied by low moaning.

right hand Keeps constantly wandering to the head, but left lies motionless by her side.

If head is touched, or if she is moved in any way, she screams violently as if in great pain.

Legs are still rigid, flexed on abdomen, & the Knee joints are quite stiff.

Head very hot Ant. fontanelle prominent & pulsating, eyes injected, pupils contracted, & squinting with left eye.

Since I saw her in the afternoon there has been slight twitching movements of muscles of left side of face, now & again.

Pulse 140. small, very feeble.

Temperature in Rectum 103°.

bowels were moved with the injection, but the vomiting & sickness still continues, but not so severe as before the convulsion.

She continued in this drowsy condition till next morning, when she had another very violent convulsion, distinctly epileptiform in character, it lasted for 2 hours & when it ceased, left her in state of Coma, face being very pale, eyes sunk & pupils dilated, breathing stertorous, pulse very rapid & small.

This comatose condition continued till midnight, when Convulsions returned again, & lasted for some hours, leaving her again in state of Coma which continued till she died about 12 o'c on the 22nd

Remarks.

Simple Acute Meningitis is comparatively a rare disease. This being only well-marked case I have met with, & as it was very pronounced case & ran very rapid course. I have introduced it here by with of contrast with the cases of Tubercular Meningitis and Hydrocephaloid disease.

Patient was strong healthy Infant. Family History good. Father & Mother were both young, strong, & healthy. The onset of disease was very sudden, child being in good health at the time. Symptoms were very violent, & it ran rapid course to fatal issue.

First intimation of illness was the severe & persistent retching & vomiting without any evident cause, during this stage child was very restless & cried a great deal as if in pain. This condition lasted for several hours, & then she was seized with violent general Convulsion, epileptiform in Character. This convulsion

lasted for about an hour. when it passed off she was left in state of Stupor which continued till next morning. when there was recurrence of the Convulsive seizure.
The stage of Stupor between these 2 "fits" was marked by rolling of head, & moaning as if in pain. Anterior Fontanelle at this time was prominent & pulsating. Pupils contracted, & squinting of left eye.
This stage was also marked by prominent Nervous symptoms, paralysis of left arm, rigidity of legs, cutaneous hyperaesthesia, & occasional twitchings of muscles of left side of face.

The 2nd Convulsion occurred on the morning of the 21st (following morning) & was also a very severe one, lasted for 2 hours & when it passed off child was in state of profound coma, which continued for 12 hours. when a third convulsion occurred & continued for some hours, again to pass off & leave her in state of Coma, & this comatose condition continued till she died about 12 O'C on the 22nd, almost

exactly 48 hours from beginning of illness.
Child never was conscious from the first convulsion.

The prominent diagnostic points in this case were:
(1) Sudden onset in healthy child.
(2) High temperature 103°.6
(3) Violent & repeated convulsions alternating with Stupor & Coma.
(4) Cutaneous hyperaesthesia, as evidenced by the violent screaming, on touching her, or moving her in any way.
(5) Rigidity of lower limbs.
(6) Very rapid course.

Taken together these points with the absence of chest disease, & exclusion of exanthemata indicate diagnosis made.

Dr. West (Diseases of Children) lays great stress on the cutaneous hyperaesthesia & rigidity of limbs, & states "that they are rarely absent in Simple Acute Meningitis in Children"

With regard to Causation in this case I

coincide that illness was due to the exposure to heat of Sun's Rays during middle of the day. There was no ear disease, nor any history of Injury to head, these causes are most frequent factors in cases of Acute Meningitis.

Points of distinction between Acute Simple Meningitis & Tubercular Meningitis with special reference to this case.

(1) Came on in strong healthy child, without prodromata. Parents young, strong, healthy. This is not usual history in Tubercular Meningitis where we usually have delicate child, with distinct precursory stage, & generally a Family History of Scrofula or Tubercular disease.

(2) Intense febrile excitement. Temp. 103°.6 This being higher than what is usually found at onset of Tubercular Meningitis.

(3) Recurrent & violent convulsions at short intervals.

(4) progressive, continuous, & pronounced character of the symptoms. No remissions as in Tubercular Meningitis.

(5) Rapid Course. Tubercular Meningitis

usually having a course of from 2 or 3 weeks or more.

In addition to these points the prominent & pulsating fontanelle would distinguish Simple Acute Meningitis from Hydrocephaloid disease.

Simple Acute Meningitis may prove rapidly fatal as in this case, or may have a more prolonged course.

M. Rilliet (Meigs & Pepper Diseases of Children) states "that duration in this disease is short may end in 24 to 36 hours, seldom lasting longer than from 3 to 6 days".

Dr. Spence Ramskill (in Reynolds Sys of Medicine) Vol. 2, states "that duration of Simple Acute Meningitis is very variable, & as a rule death only follows about end of 1st week, although it may be end of 2nd 3rd or 4th week"

The different opinions expressed by these 2 Authorities is rather striking, & worth bearing in remembrance. As in these more prolonged cases which Dr. Ramskill

refers to, the diagnosis would be matter of supreme importance, & differential diagnosis as between Tubercular Meningitis & S. A. Meningitis might be rather difficult in some cases. These 2 diseases resemble each other to great extent, Tubercular Meningitis being just ~~Tuber~~ Simple Meningitis plus tubercular element. We require to bear in mind that onset of the 2 diseases may be much the same, & that it may be almost impossible to distinguish between them were we to trust to symptoms alone.

It is here that we would see the great value of careful study of the Etiology & Family History in cases of Cerebral disease, as in many cases there would undoubtedly help us in forming our diagnosis. Careful watching of case would assist also, & as it progressed the characteristic symptoms of Tubercular Meningitis would develop if case was of that nature, & as a rule if case was Simple Meningitis would run more rapid course. It is very important for purpose of treatment

to recognise Simple A. Meningitis at early stage: for as Dr. Ramskill observes "that altho' death generally occurs, a few cases recover but only when active treatment has been employed from the very outset."

Treatment adopted in this case was Bleeding. 4 leeches were applied to the head, this was done early & seemed to be indicated by acute character of symptoms in strong child.
2 gn of Calomel given internally, & injection per rectum.
Owing to state of Stupor, & rapid course of the case, there was little opportunity for any treatment, & no further Medicines were tried.

Dr. West recommends Bleeding, Mercurials & Cold applications to head in Simple Meningitis, & states that these must be used with no sparing hand if he would have any chance of saving

patient.

Dr. Ramskill recommends assiduous use of Ice bag to Head in these cases. but I must state that I would scarcely be inclined to adopt that practice in Infants. for fear of sedative effects of Cold which might be dangerous.