July 1884

"Symptoms and Treatment of
Some of the more common diseases
of the Lungs in Children"

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Motherwell June 1884.

Diseases of the Respiratory Organs in Children, form so important a part of the work of a general practitioner that no apology need be given for taking up the subject. These diseases are very common in this district, owing partly to the climate & soil and partly to the character and habits of the people.

To show the fatality from these we have only to look at the following table, drawn up from the Registrar's Book for the year 1883.

| | under 1yr | under 5 | between 5 & 15 | Over 15 |
|---|---|---|---|---|
| Diseases of Respir. Organs | 31 | 24 | 7 | 48 |
| " " Nervous System | 16 | 6 | 3 | 10 |
| " " Digestive | 20 | 10 | 0 | 16 |
| Other diseases | 22 | 9 | 3 | 63 |

The above statistics show that of children under 5 - out of a total deaths roll of 248. 138 deaths occurred under 5 years of age.

a death rate of nearly 50 per cent. which is extremely high; and of them 138, 55 died from diseases of the Respiratory Organs.

In a treatise of such limited scope I do not propose to go into a lengthened and minute description of these diseases; but only to make a few remarks on some of the more common, especially from cases which have occurred in my practice during the last 3 years.

The study and diagnosis of Disease of the Lungs in Children requires great patience and tact: as we have nothing but objective symptoms and physical signs to guide us: consequently the power of observation of the practitioner is called into greater requisition

In this Paper I intend taking up
1st Coryza, simple non Syphilitic
2nd Atelectasis pulmonum or Collapse
3rd Bronchitis

4th Hooping Cough
5th Pneumonia, Empyema & Glandular
6th Pleurisy.
Phthisis pulmonalis is of course a study, & altho' Common in children yet is not so common as those above mentioned especially the last four.
My remarks will specially apply to children up to the age of 5 years.

Coryza. Simple non syphilitic — a disease which is not unfrequently met with in children during the first year of life. It is caused, in by far the majority of cases, by exposure to cold or draught. The symptoms are similar to those in adults but the discharge of mucus is much more plentiful & more frequently becomes purulent.
It causes very great obstruction to sucking, as the infant at the breast, during the act, respires entirely through the nose, and it is this which often causes the pain

to seek for advice

Chronic Coryza although a the most mayous of Colds, specific, yet occurs as a signal & acute and is often difficult to cure. In distinguishing Constitutions the discharge is more apt to take a purulent character. In the small number of cases which I have come under my notice, I have never met with any leading to a fatal termination.

Treatment of simple acute Coryza.

In my young children I have found that the best and most permanent cure is to get a flannel cap. close fitting, round day and night until the symptoms disappear. The nitric and occasional warm bath generally proves efficacious.

If the nose is red and inflamed and the discharge irritating, a camel hair brush dipped in Glycine & Glycerine & Tannic acid may be passed up the nostril twice a

three time a day. In chronic cases the same local treatment may be used, but the child improve greatly under tonic treatment, especially under some of the mild preparations of Iron. such as the Citrate. or Syrup of Iodide. If the discharge get purulent, a nasal douche of Lukewarm water with the addition of a little Condy before using the camel hair brush with Glycerine Tannic acid, is of great Service.

Atelectasis pulmonum. There are two varieties of the, Congenital and acquired.

In Congenital Atelectasis. The symptoms are different both in degree and nature, according to the amount of lung substance involved. In slight cases, the child when born does not show those healthy motions and appearance which are characteristic of a newly born child, but remains quiet

or moves but slightly, and in a languid manner. The Respiratory function is noticeably deficient, the respirations being short & shallow, with very little increase in dilatation of thorax at each respiration. The child's lips are often dusky or livid when born, & although the heart beats are strong & true, yet the whole appearance of the child shows a want of vitality of respiratory function. If the case improves the respiration get deeper & chest more expanded, colour is free and body get more healthy, and soon the child cries in a hearty and vigorous manner.

This change I have seen occur at once, but in the case the child remains feeble for week & the respiration imperfectly developed. In unfavourable cases the symptoms are very marked but for the better illustration of the subject, I will take a case where I

occured in my practice within the last few weeks.

M. K. age 21. a strong healthy vigorous woman. was delivered of a child after a natural & fruitful labour. At birth the child had a peculiar colour. & the whole uterine development had not been great. It was weakly and puny and when born did not show signs of great vitality. As it was so weakly & badly coloured I did not cut the cord at once but allowed the placenta to detach itself and the natural circulation thro the placenta to cease of its own accord. The heart of the infant was beating strongly; but the respiration as yet was very imperfect. The child a few minutes after birth gave a sigh & then took a convulsion. the legs and arms were drawn close to the body & the eyes turned up.

This did not last long but when the convulsion ceased, the child remained quite quiet its limbs were limp and motionless. The lips of the child when born were of a reddish blue colour but in a few minutes the bluish colour began to disappear & the lips became white as the respiration grew less. The child took a respiration every 20 secs for 2 minutes, these respirations were peculiar & very characteristic. The inspiration was quick & sudden. the thorax was elevated suddenly, and almost as suddenly collapsed

There seemed to be a quantity of mucus in the air tubes, as the expiration & inspiration were accompanied by loud mucous râles

The child took another convulsive fit, and the heart ceased beating despite all effort to establish the respiratory function.

I may mention that the symptom of imperfect expansion of the lungs mentioned by Dr. G. Ree of London. viz. the ribs in inspiration moving inwards to the median line of the trunk was also noticeable.

In the treatment of all cases of Congenital Atelectasis the probable cause must first be detected. If there is much mucus or fluid in the larynx and air passages, then the mouth should be at once opened and cleared with the finger and the effect brings on vomiting which at once clears the air passages of a quantity of mucus.

In the case above mentioned Howard's method of artificial respiration was tried for an hour and a half but all was of no avail

Previous to this however the child had vomited a quantity of thick glairy mucus.

I have seen in my limited experience but not the extreme

Case of Congenital Atelectasis which lived many days.

There is another form of Atelectasis the acquired form; This was at first thought to be Lobular Pneumonia, and was described as such by many observers up till 1844 when Bailly and Legendre published their researches on the subject in the "Archive Generale de Medecine" and stated that this was not Lobular pneumonia but that the lung had returned to its foetal state owing to occlusion of the air vesicle.

This question of Collapse of the lung is a very important one, but I shall only take up the subject in so far as it is caused by Bronchitis. This is by far the most common cause of Collapse. Owing to the unsurmountable difficulty in obtaining post mortems in a district like this the correctness of a diagnosis cannot possibly be ascertained, but out of 80 cases of Acute Bronchitis

of which I took notes of. I have only met with 3 cases in which the symptoms pointed to collapse having taken place

In regard to the cause of this Dr Gairdner has shown that there is in the bronchi an accumulation of mucus, this mucus owing to the state of the muscular apparatus of respiration is unable to be coughed up & expectorated. Owing also to the shape of the bronchial tubes, which gradually diminish in calibre, if the mucus is lodged in a bronchial tube, it acts as a plug and at each inspiration part of the lung supplied by that bronchus is deprived of air, while at each inspiration the plug of mucus is drawn further in towards the smaller bronchi

Symptoms of collapse are mixed up with the symptoms of bronchitis

The diagnostic symptoms are however sudden in their origin and the sudden change taken

in connection with marked physical signs of dulness, show that collapse has taken place. The percussion over the part of collapsed lung is not so dead as in lobar pneumonia. and the stethoscopic examination of the same area shows absence of the Bronchitic râles, and supervention of muffled bronchial respiration.

The pulse get small and quick & the temperature falls.

Treatment of <u>acquired</u>. In the case which occurred in my practice the treatment was an all stimulating one. Hourly dose of Aromatic Spirit of Ammonia with Spirit. of Chloroform and Mustard poultices to the affected part followed by rubbing with Camphorated Oil or Linimentum Saponis.

After the redness of the skin had disappeared & a slight exhibit, a stimulating liniment was rubbed on the chest 3 or 4 time a day.

and the chest well wrapped in Cotton wool. The abdominal bandage ought in all these cases to be removed, & the child should be simply wrapped in flannel and cotton wool.

A warm blanket folded in four and wrapped round the child serves the purpose well. The temperature of the apartment ought to be kept up to 70°.

Emetics are said to be of use but I have never had any experience of them in collapse, and would hesitate to use them, as the depression produced is often so great.

## Bronchitis

There are three principal forms of this disease met with in Children
(1) Simple Acute Bronchitis
(2) Capillary Bronchitis
(3) Subacute or Chronic Bronchitis

Causes. In this descriptive Bronchitis in all it forms, is the disease most

Commonly met with in children, and its most frequent cause is exposure to cold with insufficient clothing.

Bronchitis is also very common as a complication of measles and Hooping Cough, altho' the Bronchitis of Hooping Cough takes more the form of Broncho-Pneumonia. During teething the mucous membranes of children are very liable to catarrh, and consequently we have frequently during the first dentition attacks of Bronchitis and Diarrhoea.

Symptoms Acute simple Bronchitis most frequently develops out of an ordinary Catarrh. It is sometimes preceded by a cough, but not always.

In mild cases there is no complaint of pain but the child does not sleep well owing to slight difficulty in respiration and cough. The cough at first is dry and slightly irritating but not paroxysmal, and in 24 hours not appropriate

treatment it becomes loose and non-irritating. There is no action of the nasi. The physical signs are slight mucous râle all over the chest, best heard in the interscapular region and more slightly over the sternum. These signs remain for a few days and then disappear. There is no fever of any consequence, although in many cases I have found the temperature in the evening slightly over 100°. The cough disappears gradually and in children under 5 years with no visible expectoration.

In most severe attacks viz.

typical case we have all the above symptoms in an exaggerated degree. The fever is greater & varies much at different times, the morning temperature is rarely above 101°. and the evening rises of in bad cases to 103°. Pulse is quick, full and bounding, varying according to the age of the child from

120 to 160. Respiration is hurried, wheezy, and with slight dyspnoea. There is frequently pain in coughing as evidenced by the child crying.

Physical signs are manifest. Especially as before at the back and consist of, at the first, mucous and dry râles. The dry râles gradually disappearing in a few days, and the moist ones increasing in number, frequency & loudness.

As mentioned in the Article on Collapse, the symptoms may at any time become aggravated, owing to the supervention of this complication.

The râles in bronchitis are typical and consist as above mentioned of dry râles which are generally sibilant & cause that peculiar wheeze so pathognomic of Bronchitis in its early stage. The dry râles are best heard in inspiration & in this differ from the moist râlle which may be heard both during Inspiration

and inspiration. Percussion is always clear in Bronchitis although some Observers state that if there is great accumulation of mucus in the Bronchi the percussion is slightly affected. but I have never been able to Verify this. The Respiration in acute Bronchitis is different affected according to the severity or mildness of the disease. In severe cases there is much Dyspnoea & acceleration: in some cases I have seen the respiration 80 to 85 in the minute, the expiration being short and sudden and the inspiration following on it at once and as short. Then inspiration succeeding with no perceptible pause between.

The expression of the face is often altered in bad cases with high fever and much dyspnoea there is marked action of the alae nasi. In all cases of simple idiopathic bronchitis in an

previously healthy child, the prognosis is very good, but in Secondary and Capillary bronchitis the fatality is very great. Bronchitis after measles whooping cough has a tendency especially after the latter to take the form of Bronchopneumonia & in that case the prognosis is altered.

The treatment of simple acute Bronchitis differs in degree according as the case is mild or severe. In a mild case, confinement to a single apartment, with a temperature of 65° is sometimes of itself sufficient and this with the application of a hot-poultice to the front and back of the chest, is generally all that is necessary. Here I would say a word in regard to the making of a good warm linseed meal poultice.

By many ignorant people, the efficacy of the poultice is thought to lie in the linseed meal itself that is it possesses of some special

virtue for the curing of all sorts of Inflammations. If a linseed meal poultice is ordered for the chest in Bronchitis, it is as well to see that it is properly made and applied.

I have seen Rome most horrible messes applied to the chests of Children suffering from Bronchitis and Pneumonia, they are often applied nearly cold, and there seems to aggravate instead of to ameliorate the disorder. The method generally employed is to take a bowl, and after scalding it with boiling water pour in boiling water and add linseed meal, gradually stirring all the time until the poultice attains such a good consistency that as Abernethy says, "you could throw it up to the ceiling and catch it in descending." I find that the above method does not produce such a good poultice as the following

which has also the advantage that the linseed meal can be utilised over & over again. The water is boiled in a pan, then the linseed is added gradually to the boiling water in the pan, & while it is still on the fire, stirred all the time until the same consistency is got as mentioned above. Then take a large Square of Surgeons Lint, the worsted side out, and pour the poultice on it. spread it out, & take in the corners of the Lint. If mustard is required, the mustard ought to be made separately with cold water & spread on the Lint before the linseed is added. The advantages claimed for this method are, economy, dryness of the poultice, and preservation of the heat for a longer time. The same poultice can be put in a pan and heated up with a little water added, and the poultice is as good as new.

In practice among the poor this is a great advantage, as they object to the expense of using fresh Linseed meal for every poultice.

The Diet in Bronchitis should be light, and generally a milk diet in infants & the breast milk be found best. The bowels have often a tendency to diarrhoea, so that even if they are only moved once in two days, purgatives are not necessary. This tendency to diarrhoea is more frequently in young children at the period of dentition, when the mucous membranes are more liable to catarrhs & it is also said that Diarrhoea may be produced by bullae and muco-pus swallowed by children under 5 years who are unable to expectorate.

If the bowels are at all constipated, the best remedy is a little Castor oil, if there is acidity of the secretions a little Soda

and Rhubarb is also useful.

Emetics and Expectorant may be used, the former occasionally when the chest is stuffed up with secretions, and the dyspnoea severe.

Ipecacuanha wine in teaspoonful dose is useful, in this case repeated every quarter of an hour until free emesis is produced.

Expectorant mixtures may also be used. Squills or Tolu with Spirit of Chloroform & Citrate of Potash; if the cough is very irritating and the child suffering from sleeplessness restlessness, a little Tinct. Camph Co may be added in doses regulated by the age of the child.

Capillary Bronchitis, or Acute Suffocative Bronchitis, one of the most fatal Chest diseases in children. It may be idiopathic or secondary.

In secondary cases, it may

follow ordinary acute Bronchitis, or may arise as a Complication in Measles & Whooping Cough.

The symptoms and physical signs of Capillary Bronchitis differ from those of Ordinary Bronchitis in character as well as in degree.

The fever is higher, rising in most cases to 103° & in some & nearly 105°. just before a fatal termination

The pulse is Quick & rather "thready" early in the attack, & reaches sometimes 160 and may even be found as high as 180 in the minute

Respiration is much affected; Quicker and there is usually great oppression

The child even in swallowing liquids has to take breath, and often swallows them hastily & resumes breathing

The cough is short and frequent and not at all loose during the first few days of the disease.

Physical signs are well marked, there is no dulness on percussion

but accumulation shows a Coarse muco crepitant râle, at the base and last heard at the back. This is Some-times preceded & Sibilant-râles, but generally the muco-crepitant râle has developed before advice is sought.

The muco crepitant sometimes approaches in character to the fine crepitus of pneumonia, but it is distinguished from it & its coarse quality & specially & its being heard both at inspiration & expiration. The râle lasts for a few days and then if the case take a favourable turn the râle get more & more mucous

The Respiratory murmur is often feeble in Capillary Bronchitis and this need only be expected from the Character of the Respiration.

If the case tends to an unfavour-able termination, all the above Symptoms would be aggravated, the distress & restlessness would

should get worse, the pulse & respiration increase in number. he lashe shows. and with deficient expansion of the chest and violent action of the alae nasi. the colour of the child changes. its face assuming a white appearance with black under the eyes. perspiration often appears on the forehead and upper lip. and the eyes are generally not completely closed

the dyspnoea increases, the child ~~lifting~~ is taking it head high, the pulse often get thready and uncountable, and respiration may become stertorous

Just before the child dies, the often ~~pa~~ Convulsions, and generally death is preceded by a period of comparative repose as contrasted with the restlessness of the preceding 48 hours. Convulsions may occur during one of which the child may die. but these are not very common as a termination of bronchitis

If the case take a favourable turn. the mucocrepitant râle diminishes, giving place to a moist râle & return of the Respiratory murmur, and all the general symptoms improve.

Treatment of this form of Bronchitis must be in the main stimulating, formerly bloodletting, wonder have been practised, but even partial bloodletting is inadvisable in children. Linseed meal poultice with mustard, frequently applied to back & front of chest of very great service. During the first 24 hours they ought to be renewed at least every 2 hours & the Chest rubbed with warm Camphorated oil, & wrapped in Cotton wool. At the same time a warm foot or sitz bath is of great service. A mixture of Vin. Ipecac. mxl & Liquor Ammon. Acet. may be given as in the following mixture suitable for a child 3 years old

℞. Vin. Ipecac. ℥ss
Spt. Ammon Arom ℥ss
— Chloroformi ℥ss
Aq. ad ℥ iii ℈ss
Sig. ℥ss every hour.

The frequency of the dose is of the utmost importance. I have seen children, whose lives had been despaired of recover under the above treatment. The following Case may serve as a good Example.
A.B. Child 3 years old. had frequent attacks of Bronchitis during it's first dentition but none of them were dangerous when I was called to attend the child it had been ill for 6 days. The parents had got alarmed at the dangerous character of the symptoms. The child was in bed. with it's head high on the pillow, breathing was short and sudden. eyes closed, alae nasi in violent action. and all the other symptoms of bronchitis marked.

Physical examination showed muco-
-crepitant râle all over. I at once
ordered Mustard Poultices all round
the chest. a hot foot bath and the
above mixture repeated every hour
for the first 24 hours. Next day
the Symptoms had become less dangerous.
the Cough was looser. and the child
had had 2 hours sound sleep.
From that time it gradually recovered
and in 8 days was moderately well.

A month afterwards I was called
to see the same child with the same
Symptoms. The above treatment was
again efficacious in restoring it to
health. In Cases where dyspnoea
is great & secretion of mucus large
as evidenced by increase of râle: an
emetic is of [redacted] use. but in
Capillary Bronchitis, I greatly
prefer the Stimulant treatment
above mentioned.

Subacute and Chronic Bronchitis

I have seen to deal with this form, owing perhaps to the exposure of children too soon after an attack of acute Bronchitis

It generally follows after one or two attacks of acute Bronchitis. & presents many symptoms like it, but less exaggerated. Sibilant and mucous râles are heard all over the chest, and the childs breathing is wheezy and laboured.

In such patients the slightest cold is sufficient to bring on an attack of acute. which generally passes off in a few days with appropriate treatment. I have known children suffer from this till they were 7 or 8 years old. the first attack having been when the child was in its first dentition.

Dentition plays a very important part in the causation of subacute Bronchitis. after the child has once had an attack of acute Bronchitis

To illustrate the above. I shall ~~He~~ give a typical case.

C.D. a child of healthy parents, Continued well from birth till it was 6½ months old when it took acute Bronchitis. I was not then very ill, & the Symptoms were at no time dangerous. It recovered in a few days & remained well and healthy for 5½ months. One morning I was called to see it as it had turned very ill, and I found on arrival that the little patient had taken ill a few hours before. I examined its mouth & found that two of the double teeth were pressing on the fauces.

Dyspnoea was very great, in fact so great that I did not think the child had many hours to live, the chest was full of rales, sibilant Ronchus. The expression of the face was anxious the alae nasi were in violent action. & perspiration abundant on the forehead. I immediately ordered. Vin. Ipecac. a teaspoonful every quarter of an hour, and waited till free emesis was produced.

a stimulant mixture was ordered to be given every 2 hours. and mustard poultices applied to the chest. Eight hours after the child was sleeping peacefully, and next day was comparatively well.

Six weeks afterwards I was called to see the child, and found that it had the same symptoms and physical signs, also that another pair of double teeth were nearly through the gum, Two months after, the child had a much more severe attack, the symptoms were more decided & there was a good deal of spasm of the larynx. The air reached right into the lungs in small amount, & the lungs were full of sibilant & mucous rales.

The child was no better after five emetics, and it was only after giving it a hot bath for 10 minutes that the spasm abated & the symptoms grew less. Then an

emetic was given, which relieved it greatly.

The above case shows that in children there is no doubt an intimate relation existing between dentition & Bronchitis when the patient has had a previous attack of acute Bronchitis

I believe the reason is to be found in this, that the vitality of the system is lessened & the dentition and the bronchial tubes being weak and sensitive to cold, they are attacked in sympathy of the mucous membrane of the intestinal canal.

In the treatment of Chronic Bronchitis preventive measures must be looked on as the main treatment. The child should be kept free from exposure to cold and the temperature of the sleeping apartment should be regulated.

Clothing should be warm flannel

all over, and especially on the chest & wrap up round the neck and arms.

Change of air & the seaside is often beneficial especially from a district like this where East & South West winds are prevalent and strong. Codline oil and tonics may also be given as the milder preparations of Iron with Lemons &c

I have found that these Children often do well on Kepler's Malt-Extract with Iodide of Iron. gaining flesh & strength very quickly.

Hooping Cough. is a disorder of infancy & is eminently contagious. The mortality from simple Hooping Cough is not great. but when complications set in. then it becomes a moderately fatal disorder.

The period of incubation varies much. I have known it be as short as 3 days. while in other cases it may be prolonged to 14 days.

It is usual to describe three different stages of this disorder. 1st the Catarrhal stage. 2nd Spasmodic stage. and 3rd period of Decline.

From an analysis of 140 Cases I find that the average duration of the different periods is.

| | |
|---|---|
| Catarrh | 10 days. |
| Increase | 2 1/2 day. |
| Stationary | 12 to 15 days. |
| Decline | 14 days. |

Of course various complications may prolong the two last stages. but the first remain nearly the same in all typical cases.

The 1st stage begins with symptoms like an ordinary catarrh. with moderate fever. The Cough differs little from that of Common cold. but in a few cases I have noticed that it became slightly paroxysmal more frequent at night.

In the second stage the marked character of the Cough shows it

confirm the diagnosis, as it is paroxysmal & spasmodic.

The "kink" are always worse towards evening, and in the early part of the day they do not occur nearly so frequently. Although the child after first waking in the morning has two or three severe attacks owing probably to irritation of the mucus in the bronchial tubes. Between the attacks of cough if no complications ensue the child is comparatively well & plays about as usual. Whenever it feels the attack coming it runs to it mother or catches hold of something

The cough is spasmodic, dry, and the expiratory spasms continue till nearly all the air is expelled from the lungs. The child shows symptoms of asphyxia. The face is bluish & swollen, the eyes seem starting out of the head. perspiration breaks out all over the face.

This is uttered as soon as the spasm passes away, when the air is drawn through the glottis in such a way as to produce the peculiar hoop or "Rink" so characteristic of this disorder.

In young children this is generally accompanied by vomiting of the contents of the stomach mixed with a thick, glairy mucus. In older children this mucus is generally expelled without vomiting, and sometimes in severe cases is stained with blood, most probably from rupture of some of the small blood vessels in the lungs. Blood may also be effused into conjunctivae, as in one case of a little girl aged 5 where there was extensive haemorrhage beneath both conjunctivae, which disappeared in about 4 weeks. Convulsions are rare, but when they do occur are very fatal. Out of all my cases only one took convulsions and terminated fatally in two days.

The paroxysms of coughing occur more frequently as already stated, towards evening. In some cases taking place every quarter of an hour till after 12 o'clock - when there is generally a lull of two or three hours.

At this time the number of "Runs" in the twenty four hours is about 36 or on an average 1½ every hour.

In one extreme case I have known the number of Runs to reach 88 in the 24 hours. The paroxysms may be excited by the slightest disturbance & are often brought on by fits of Crying.

These paroxysms in a typical case remain altogether nearly 3 weeks when they begin to decline.

The third stage or period of decline may generally be detected by a diminution of the nightly exacerbation the paroxysms becoming less frequent, the cough less spasmodic. and the general health begins to improve

The appetite which ~~has~~ all along

is one moderate, now improves

The above stages may be lengthened & various complications. If an attack of Bronchitis ensues within a few weeks of the disappearance of the malady the "kink" is very liable to return. The most common complications of ~~Hooping~~ hooping Cough are Bronchitis. Catarrhal & Broncho pneumonia & Convulsions

In the cases which have proved fatal in my practice, I find that Broncho pneumonia is by far the most common cause of death. It very often begins suddenly, and owing to the tendency of the bronchial mucous membrane to catarrh, very little exposure is sufficient to develop it.

Croupous Pneumonia is not at all a common Complication & has not occurred in my experience.

Collapse of the lung is ~~also~~ very liable to occur with the Bronchitis.

The Complication to guard against is certainly Broncho pneumonia

or Capillary Bronchitis. Owing to the weakened state of the general health it is very liable if not taken in time to lead to a fatal issue.

Convulsions may occur, and if they do the "Kink" generally disappears & the Cough becomes spasmodic. In a case which occurred to me lately. He died with Broncho Pneumonia, and 8 days after a severe Convulsion. The "Kink" disappeared, but the cough still Continued, although it was loose & more like the Cough of Bronchitis. The patient lingered for two days, and then died in a second Convulsion.

In another Case of a little girl aged 5 the hooping Cough lasted 5 weeks. but the Child never had any hoop at all & the only thing that made the diagnosis Certain was that the Children in the house had it typically

treatment. There is no disease which has so many different remedies tried for relief as one as hooping cough. Almost every medicine in the Pharmacopeia has been tried, but the disease passes through its stages despite all treatment. I it is questionable if these remedies even ameliorate the hooping cough; they may ~~relieve~~ relieve complications but they certainly do not cure the patient of the spasmodic disease

In mild cases it is best to do nothing medicinally, only for the first fortnight keep the child in the house & from exposure to cold & draughts. In fact in many cases the doctor is never called in. & the children seem to get well without even a cathartic

If the Cough is very painful and irritating during the first stage benefit may be derived

from the use of a simple expectorant mixture containing squills and Ipecacuanha.

Many remedies have been recommended for the spasmodic stage & all these I have faithfully tried. Hydrocyanic acid is said & I set to be of great service & this with Tincture of Belladonna is a favourite remedy. Some add Bromide of Potash to this mixture.

The remedy which I have found do most good is Ammon with Tinct. Belladonnae with Syrup of Squills in doses regulated to the age of the child. This combined with inhalation of Carbolic acid I have found to be ~~to be~~ of the most service in uncomplicated cases when the "Kinks" were severe and frequent.

Lately the liquid extract of Ergot has been recommended but I cannot say that

the cases in which I tried it derived any benefit from it administration

Conium is a favourite remedy with some, but I much prefer Belladonna.

Dr Eben. Watson many years ago. recommended topical application of a solution of $AgNO_3$. to the larynx. I have tried it once and shall never try it again as it produced a fit of coughing worse than any the child ever had, and it is almost impossible to repeat the operation, as the little patient has a nervous horror of it.

In regard to Inhalation of Carbolic acid. I find if a flannel cloth is dipped in a solution of the strength of one to forty and hung over the child's cot that in a day or so the paroxysms grow less frequent & troublesome. I tried this remedy in 14 cases & in 12 I could say that relief has certainly followed.

Treatment of Complications

Bronchitis must be treated as usual. Mustard and linseed poultices with stimulating expectorants. Confinement to bed. Regulation of diet and attention to bowels.

In general the treatment of Convulsions especially of those supervening on Broncho-pneumonia must be sedative. Bromide of Potassium with warm baths. and poultices.

In many cases when there is Bronchitis or Broncho-pneumonia diarhoea comes on & this is best checked by a dose of Hydrargyrum c. Creta with Rhubarb & Soda. As it is nearly always caused by the lodgment of some of the expectoration in the intestinal canal. producing irritation of its delicate mucous membrane.

Pneumonia or Inflammation of the substance is by no means a common disease under five. The disease which is often called pneumonia & which proves very fatal in Children under this age is bronchio - or catarrhal pneumonia & it is this that I purpose describing.

Simple lobar pneumonia is in my experience a comparatively rare disease, and one which is often difficult of diagnosis in young children. The symptoms when it does occur resemble those in the adult only that Convulsions take the place of rigors at the beginning of the disorder.

Rindfleisch in his Pathological Histology (Sydenham Society - Edition volume II) says that in Children under the age of 5 hardly any other form of pneumonia occurs than the catarrhal. & from the experience I have had here in

chest diseases of children, I am inclined to think that this statement approaches the truth. I will not go so far as to say that lobar pneumonia never occurs, but of the 120 cases of pneumonia in children under the age of 5, which I have had during the last 9 months, only 3 could be said to show typically the physical signs and symptoms of lobar pneumonia, and the rest being cases of bronchial or catarrhal pneumonia.

Lobular or catarrhal pneumonia is most invariably preceded by Bronchitis or Catarrh of the larger air tubes. The child has generally had Bronchitis for a day or two, when it is seized, without a rigor or convulsion, with severe dyspnoea, high fever, short, sharp cough, and great lividity of the countenance.

Respiration is very quick and laboured, being often as high as

80. and the pulse is quick and full - but towards the fatal termination of the disorder it becomes thready and almost uncountable. Fever is also very high and in 3 cases I have found a hyperpyretic temperature of 106° F and these proved fatal.

The cough is much more irritating than in bronchitis, is unaccompanied by expectoration, & is extremely exhausting.

The physical signs in the chest are various. In cases which have been preceded by Bronchitis, sibilant sonorous râles are present but along with these we have a muco crepitant râle, and this very frequently at the base of the lungs at the back and in the axillary regions.

The child does not complain of much pain; but his mind & all his attention is given to the

respiratory act. The cheeks are generally pale & livid, and the alae nasi are in violent action. This form of pneumonia is common after hooping cough. And I have no doubt but that Capillary Bronchitis & the Catarrh in most cases.

It is often difficult to distinguish between this form of Pneumonia & Capillary Bronchitis: there is no dullness in either & the difference in temperature is not great as I have known cases of Capillary Bronchitis in which the temperature reached hyperpyrexia.

When the attack is going to prove fatal, the child gradually grows worse, all the symptoms becoming aggravated and the dyspnoea very great. The child inclines to have its head high, & very often prefers its mothers knee to any other position. The skin breaks out into perspiration

and the forehead is generally covered with it. Sordes gather about the teeth. the tongue get dry and fissured.

Thirst is very great and the child nowed drink anything that is given it. Gradually it sinks into a state of semiconsciousness, in most case it dies comatose, although death may be preceded by a convulsion.

Treatment: Mustard poultices frequently applied to the chest both back and front & into the axillary regions. with strong diffusible stimulants, give the patient the best chance of recovery.

Carbonate of Ammonia, mix Spirit of Chloroform & small doses of Tinct. Camph Co. may be given.

In the beginning of the disorder, if the child is seen early then half minim or minim doses of Tincture of aconite, with liq. Acetat. Ammon. every 2 hours serves to reduce the high temperature & relieve the other

symptoms. In many cases, if the child has been previously healthy, tends to recovery naturally, and in those cases by hygienic measures. Warm poultices we are able to keeps the patient to recovery.

The temperature of the apartment is of the utmost importance. It should never be less than 65°, and I have found that a temperature of 70° is comfortably borne by children suffering from Catarrhal Pneumonia.

Diet should be light; milk diet is by far the best for the first 8 or 10 days. Then a little chicken or fish soup should be added. Milk and soda water, or milk and lime water in teaspoonful doses is often borne by irritable stomachs when nothing else suits, I may state this remains the sole diet of a pneumonic patient for one or fortnight. Then rice and tapioca pap, arrowroot may also be tried, but the frequency

If diving the nourishment is mainly to be attended to.

If the discharges from the bowels are acid or greenish. & contain undigested milk. grain dose of Calomel with the addition of a little soda & rhubarb may be given

During convalescence tonics are of great service. as the debility is often great.

## Pleurisy

Idiopathic pleurisy is a very rare disorder in children under the age of 5 years, but secondary pleurisy is often met with as a complication of Scarlet fever and pneumonia.

In young children the physical signs of pleurisy are exceedingly important. as the symptoms are not at all definite, and a diagnosis could not be reached if we depended

on them alone.

The sign which occurs in adults namely that of friction sound cannot be heard to any extent. The first symptoms to call the attention of the mother are severe fits of crying aggravated by movement of the child and by pressure on the affected side.

The pulse is quick, Temperature rises to 103°. Cough is not very severe but the child always cries during & after the attack of Coughing

Examination of the chest shows bronchial respiration in one lung and this bronchial respiration must be distinguished from that in lobar pneumonia. It does not resemble it, but partakes more of the true tracheal sounds. No râle is heard along with it. & the dulness on percussion is much greater than one meets with in lobar pneumonia.

Generally the other lung does enough of having the great part of the respiratory function to perform, as the breathing is loud and rough. The air entering it more forcibly it would seem.

At the apex of the affected lung is frequently met with aegophony, if the effusion be great. but if not then aegophony is not generally heard in young children.

The only method of surely distinguishing pneumonia from pleurisy in young children is by the increase or decrease of vocal fremitus and resonance. In pneumonia the cry or moan causes increased vocal resonance & fremitus, while in pleurisy the vocal resonance & fremitus are perceptibly diminished. or are altogether wanting.

It takes great patience and tact to get these signs properly, but by waiting long enough. the

desired information can be obtained.

Displacements of the heart and liver is also of great help in diagnosis, the former taking place in effusion on left side, the latter in effusion on the right.

The temperature also serves to distinguish from both lobar and lobular pneumonia as it is only very it rises above 103° & even then only last for 2 or 3 days. In general after the 4th day it sinks to 101°.

Recovery most frequently follows attacks of pleurisy in healthy children, if the effusion is not great. & very severe cases may recover if the powers of nature are not overtaxed & the compression of the lungs and heart.

The following case is interesting as showing typically the symptoms of acute Idiopathic pleurisy.

A. K. a healthy strong boy of

13 months took ill somewhat suddenly with severe vomiting. Alternating with fits of Crying, fever and Short cough. next day I saw the child and found that the left base was dull on percussion. but there was marked bronchial ~~breathing~~ breathing extending up into the left interscap-ular space & into the Axillary region. the pulse was 130 Quick & full. Respirations 45 a the minute. Temperature 102.5 at 12 oclock in the day & 103.25 in the evening. The symptoms were referred by the nurse to the head "She was sure it had Inflammation here." The eyes were half closed and only the sclerotic seen. the legs drawn up on the abdomen & the whole appearance of the child was as of one suffering acutely. I ordered a poultice and dry cupping to the affected

side. A little Antimonial wine with Syrup of Squills and Spirit of Nitrous Ether was given every 3 hours. The child remained "in Statu Quo" for the next 14 days when I was called to see it again. No alarming symptom had developed. The child was lying semi conscious, breathing very quickly shortly, beads of perspiration were breaking out on the forehead & upper lip, and the mouth was twitching. From the appearance of the face I was that something had gone wrong with the intestinal region & I at once gave an enema followed & application of hot poultices to the abdomen. This gave complete relief in 6 hours and the child gradually recovered. In 14 days from this the pulse had fallen from 190, which it was at the time of the abdominal pain, to 120. And

all the chest symptoms had much abated. Bronchial respiration has almost disappeared and the cough gave no trouble

I then gave small doses of Iodide of Potash with simple syrup and the result was that the child was completely restored to health in 7 days.

The above case shows that in a young child the intestinal region should be carefully watched in pleurisy; seeing that the breathing is already hampered by effusion in the lung. All other regions which are in active movement ought to be watched

The treatment of acute pleurisy is confined to a great extent in the above case. Antimonials do good for the first few days but have to be carefully watched

Hygienic measures must be strictly enforced. And rest and

Quiet insisted on. The appetite is generally very bad, and thirst is not so intense as in pneumonia

Mustard poultices are of great service in relieving the pain & after the febrile symptoms disappear Tincture of Iodine may be painted on the affected side combined with internal administration of Iodide of Potash. Should these means not relieve the increasing dyspnoea then the question of paracentesis thoracis may arise. As I have had no experience of this I can say nothing of it. but refer to the rules laid down by Dr Austie in Reynolds System of Medicine