Private Obstetric Practice.

An Analysis of 3000 Consecutive Cases.

Being

A Thesis for the degree of M. D.

By

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British Med. Journ. 1878. II. p. 215.

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Introduction.

There are two kinds of imperfection that beset an Analysis such as I am about to attempt. In the first place are the imperfections inherent in the recorder - his haste, his insufficient acquaintance with all the bearings of the events that occur, his want of opportunity for & skill in scientific investigation and so on. These are imperfections which will always be present more or less and can never be completely removed.

But there is another set of imperfections that are due to the present conditions of General practice & that may to a great extent be removed in the future. I refer to the Condition of things of which Mc Clintock spoke in 1878 when he said: " Dr A. delivers a patient and another practitioner Dr B. takes up the attendance sooner or later after delivery. Eventually this patient happens to die. The death does not appear in Dr A's register as she did not die in his hands, and the case is not entered in Dr B's register

because he did not deliver her, and so" the statistics of these two practices if ever drawn up give a false result. This is specially true of a place like Glasgow where there is no division into districts, where practices overlap one another in all directions, where patients consider themselves free to leave their medical attendant when they have paid his fee or even without doing so, and where practitioners seldom hesitate to take the clients of their neighbours. In such circumstances a general practitioner has small chance of accuracy even in the statistics of his practice. But there are circumstances which are quite within the power of remedy & it is to be hoped that in the future a remedy will be found. Here however it would be out of place to discuss the subject.

The following analyses must for these reasons be taken as only approximately & not at all as absolutely correct.

Mortality of Childbed. 1870. p 21

L.C. p. 74.

Brit. Med. Journal 1878. II. p. 216

Number of Cases.

In a period of nearly sixteen years - from May 1873 to April 1889 - I attended 3000 Confinements at which 3047 children were born.

Childbed Mortality.

The first inquiry that meets us is as to the Mortality of these Confinements.

Matthews Duncan in a search of the registers of Edinburgh & Glasgow for 1855 found that the childbed mortality in these cities was about 1:107, and after a very wide range of investigation he gave it as his conclusion that "not fewer than 1 in every 120 "women delivered at or near the full time die within "the four weeks of childbed."

A.H. McClintock in 1878 not long before his death gave it as his conclusion that the mortality of childbed was even higher than Duncan estimated viz. 1:105.

Florence Nightingale was naturally startled

Lying In Institutions p. 11.

Syd. Soc. Lans. II. 420.

by the fact that a process which was physiological and not pathological was attended by such a high deathrate, but had to admit that a mortality of 1 in 200 was nearly the normal rate in childbed.

These deathrates include of course the mortality of Lying In Hospitals as well as of Private Practice. When we take Private Practice alone is the rate different?

M. Dumean quotes his own practice with a deathrate of 1:105, Sir J. Simpson's with 1:145, Dr McClintock's with 1:108 & the lowest he gives is Dr Clarke's with 1:174.

Even Spiegelberg seems to quote with approval "M. Dumeau's shrewd estimate which indicates an "average of one death out of every hundred confinements".

In my own practice, in 3000 confinements the maternal mortality has been 17 or 1:176·4.

But the mere aggregate mortality of Childbed is not a true gauge of the deathrate attending parturition. In order to get at the real mortality of Childbed we

must exclude the deaths that have arisen from causes unconnected with pregnancy & parturition.

The Causes of the 17 deaths were as follows:

1. 1873.	Primipara	on 10th day	from too long delayed delivery.	×
2. "	2 para	- 4 months after	from Uterine Tumour & metritis.	
3. 1874	Primipara	- on 14th day	from Rheumatism	°
4. "	"	- 4 "	from Metritis	
5. "	11 para	- 6 "	" Eclampsia beginning 8 hours after delivery	
6. 1877	Primipara	- 2d "	" Eclampsia.	
7. "	"	- 6 "	" Metritis	
8. "	5 para	- 7 "	" Puerperal Fever.	
9. "	Primipara	- 47 "	" Septicaemia	×
10. 1878	"	15 "	" Dysentery	°
11. 1879	4 para	19 "	" Pneumonia	°
12. "	Primipara	6 "	" Eclampsia.	
13. 1881	2 para	35 "	" Gastric Ulcer	°
14. "	9 para	5 "	" Scarlet Fever	°
15. "	3 para	5 "	" Puerperal Fever	
16. 1882	2 para	9 "	" Retained placenta	
17. 1884	7 para	7 "	" Puerperal Fever	

Five of these deaths therefore (marked °) arose from causes unconnected with parturition thus reducing the mortality from 1:1764 to 1:250.

This number however ought still further to be reduced before we approximate a normal rate such as we ought to reach were puerperal women attended and watched with due care & skill. For there is no doubt whatever that one death in 1873 was due to my delay in using the forceps and another in 1877 was due to neglect in nursing. Excluding then these two deaths (marked ×) we reach a death rate from labour & its complications of 1:300.

As illustrating this I may take the last nine years of my practice, when I may be considered to have passed an apprenticeship of seven years & when I had ceased in great measure to attend the very poorest class of the community, though my practice has always been chiefly among working people. During these nine years I have had 1410 cases with 5 deaths or 1:282. Of these five deaths however one was due to Scarlet Fever

and another to Gastric Ulcer, hematemesis &c. thus leaving only three deaths due to puerperal causes or 1:1470.

Even with a small proportion such as this however we cannot be satisfied for we can never forget that parturition is a natural function and that until it is absolutely without danger to life our obstetric art is still defective.

Mortality of Multiparae & Primiparae compared.

In 787 Primiparae the deaths from all causes were 8 or 1:98.3.
In 2213 Multiparae " " 9 or 1:245.8.

This seems to corroborate Duncan's conclusion that the mortality of first labours is about twice that of all subsequent labours. But I am not prepared to admit that that proportion should be the correct one. I incline to believe that under proper care the risks arising from the peculiar circumstances of the primipara, her inexperience, her greater liability to some forms of disease, the rigidity of her passages, a possibly contracted condition of a pelvis as yet untried are nearly if not quite balanced

by the risks arising from the advancing years & exhausted uterine & general health of the multipara.

In illustration of this I may again take the last nine years of practice & compare them. The result is 309 primiparae with no deaths and 1101 multiparae with 3 deaths from puerperal causes or 1:367. These numbers are of course too small to found any general conclusion upon them but they point at least towards an equal immunity from danger on the part of primiparae.

Nor does my experience confirm Duncan's conclusion that after her ninth pregnancy a woman again becomes subject to extraordinary & increasing risk. In the last nine years I have had 34 cases of ninth pregnancy, 9 of tenth, 4 of eleventh, 3 of twelfth, 5 of thirteenth, 1 of fourteenth, 2 of fifteenth, 2 of sixteenth and 1 of nineteenth, with one death from Scarlet Fever among the ninth pregnancies.

Infantile Mortality.

At the 3000 confinements 3047 children were born.

Of these 107 were stillborn and 49 died within a few days after birth.

But among these 3047 children are included 112 premature children who must be referred to a class by themselves before any proper estimate of Infantile Mortality can be made. Of these 112 premature children 44 were stillborn and 28 died shortly after birth.

Besides these the twin and triplet children may be considered as practically premature and should be classed separately in an estimate of mortality. Belonging to this class are 93 children of whom 5 were stillborn and 7 died shortly after birth.

Leaving these two classes out of consideration we are left with 2842 children at the full time of whom 58 were stillborn and 14 died shortly after birth, giving an infantile mortality of 1:394.

What were the causes of this mortality?

In °7 cases probably cold & exposure.
°2 " " Smothering by bedclothes.
1 " " Erysipelas starting at umbilicus.
°3 " " Drunkenness of mother.
3 " " Maternal convulsions.
°1 " " Goitre of mother.
°1 " " Pneumonia "
°1 " " Scarlet Fever "
3 " " Early separation of placenta.
3 " " Contracted pelvis.
°3 " " Maternal syphilis.
2 " " Diseased placenta.
1 " " Trismus neonatorum.
24 " " Delay in extraction, abnormal
~~8~~ " presentations.
6 " " Diseases of foetus, Malformations.
11 " from inexplicable causes.

Excluding the causes of death which had nothing to do with the parturition (marked °) we have

in 2842 children at the full time a mortality of 54 or 1:52·6.

Taking however as before the last nine years of practice we have an approach to a better mortality. In 1359 children at the full time there were 23 ~~deaths~~ Stillbirths or deaths shortly after delivery, or 1:59, but of these five arose from causes unconnected with parturition thus giving 18 deaths in 1359 children or 1:75·5.

This means that without counting the abortions that occur, without including the premature labours, taking only the cases in which the child has been carried to the full time, the expectation of the mother is still liable to disappointment in about every 60th or 70th case.

Here surely is an extensive region in which Medical Science has still many victories to gain.

Before leaving the Question of Mortality we must ascertain the rate of Infantile Mortality in the different presentations.

Mortality in Head presentations

In 2842 children delivered at the full time there were 2786 presentations of the Cephalic extremity or 98 per cent. This includes

2773 cranial presentations
9 face "
2 shoulder "
1 Elbow "
1 Arm "

Excluding the Shoulder, Elbow & arm presentations which are to be regarded as perfectly abnormal and including among the 2773 cranial presentations 7 in which the funis was prolapsed alongside of the head the mortality of 2782 cephalic cases was 59 or 1:47.1. Deducting from this number 16 cases in which death was due to causes unconnected with parturition we have in 2782 cases 43 deaths or 1:64.7.

In the last nine years in 1333 children which presented with the cephalic extremity there were 15 deaths

Schroeder (p. 67) says breech cases occur once in 39 cases.

Lishmen (p. 364) says pulvic extremity presents once in 45 cases.

Schroeder (p. 67) quotes Ch. Bell as giving mortality at 12 per cent.

Or 1:88.8.

Mortality in Breech presentations.

In 3047 children there have been 67 breech cases (1:45.4). With these we may associate the footling cases, 14 in number (1:217.6) and the Knee cases, 2 in number (1:1523) making in all 83 cases of presentation of the pelvic extremity or 1:36.7.

Of these 25 were either premature or twin cases, leaving 58 cases of pelvic presentation in 2842 children at the full time or 1:49. Of these 58 cases 25 occurred in primiparae, 33 in Multiparae.

Of the 58 children 11 were dead or died soon, 1:5.2.

How many of these 11 deaths were due to the accidents of labour?

In three cases the child was dead before labour commenced. In another case the child was allowed to remain half born till my arrival. In the other cases, 7 in number (1:8.2 of pelvic cases) the death occurred from delay in extracting the child. Five of

Lushman (p. 382) quotes Churchill as finding that arm presents once in 2 3/4 cases. Taking shoulder, arm, elbow together any proportion is once in 750 cases.

three were in primiparae with very lazy children; the sixth was a second child in a case of generally contracted pelvis in which the first child had been delivered alive with forceps; the seventh was the 4th child of a woman aged 42 years, none of whose children had been born alive. She informed me they had all been "cross births."

Transverse Presentations.

I have had two cases of shoulder presentation, one of hand & one of elbow. These presentations occurred in Multipara with the exception of the elbow case. In all podalic version was practised. One child was dead before labour commenced. It was the woman's 11th child & she was a confirmed tippler. She had a "cross birth" with a stillborn child at a former confinement. Another child died from delay in extraction. The other two children were born alive. The Mothers did not suffer.

Face presentations.

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Face presentations.

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Seven of these were in Multiparae, one of whom was delivered with forceps; two in Primiparae of whom also one was delivered with forceps. The children were all born alive and the Mothers did not appreciably suffer.

Placental presentations.

I have had 2 cases of Placenta previa, — one in a multipara with her 19th child which was stillborn, delivered with forceps, and the other also a multipara with her 5th child which was delivered rapidly by the foot. This woman was confined of twins at the preceding pregnancy. The child was carried to the full time, the hemorrhage having occurred frequently but never to such a degree as to require premature delivery though that possibility was constantly present to the patient's mind and she had to be confined to bed during the last three months of pregnancy.

Plural Births.

I have had only one case of triplets & that in a multipara.

Schroeder (p. 34) quotes Veit as giving one twin pregnancy to 89 births - triplets 1:7910.
Duncan (Fecundity 1st. p 75) in 16,301 mothers found 198 twin cases = 1:82.3.
Lusk (p. 230) twins 1:80 or 90, triplets 1:7000.

Braithwaite (XCIII 393) quotes J. Knox Madden giving 1:11 as the proportion of forceps cases in the Dublin Lying In Hospital between 1868 - 1874.
Spiegelberg (II 564) in 4864 labours used forceps 117 times = 1:41.5.

I have had 45 cases of twins or 1 in every 66.6 cases. In primiparae 11 cases or 1:71.7; in multiparae 34 or 1:65.

In these 93 children the breech presented 12 times, the feet 8 times, the hand & foot twice and the Arm alone once.

Male twins 20 times. Females 10 times. Male & Femal 15 times Forceps cases.

In the delivery of 3047 children I have used the forceps 295 times or once in every 10.3 cases.

In 800 firstborn children the forceps was used 153 times or once in 5.2 cases.

In 2247 children not firstborn the forceps was used 142 times or once in 15.8 cases

The forceps was accordingly used about three times in primiparae for every time it was used in Multiparae.

Among the 295 forceps cases there died of Mothers 7 or 1:42.1. But of this number there is only one - a case of puerperal Metritis - which could with any shadow of probability be referred to the use of the forceps, and one - my first forceps case - was distinctly

Schroeder (p. 180) gives 10.8 as percentage of deaths when forceps is used without complication

due to the use of the instrument being too long delayed.

The other causes of death were Rheumatism (1) Convulsions (2) Gastric Ulcer (1) and careless nursing (1).

In the last nine years of practice in 155 forceps cases I have had no maternal death except one from Gastric Ulcer with violent hematemesis for which labour was induced with the hope of relieving the gastric symptoms.

Of the 295 Children delivered with forceps 21 were stillborn or died shortly, 1:14.

In the last nine years, in 155 forceps cases 8 Children were stillborn or died shortly = 1:19.3.

Classification of Forceps cases.

The cases in which the forceps has been used may be classified under three heads.

1. Those, such as Maternal Convulsions in which the forceps was used to hasten labour with a

view to arrest the convulsions & save the Mother's life.

2. A second class of cases in which I have used forceps are those, such as funis presentations, in which labour was hastened with a view to save the child's life.

3. The third class may be subdivided under three heads, (α) Weak & inefficient Uterine action, (β) Large head, (γ) Small pelvis. It is evident however that these are in a great measure convertible terms. For labour that would be strong enough to expel a small child may be too weak to expel a large one. Again a head which is small for one pelvis may be too large for another and a pelvis that is contracted in relation to one head may be spacious in regard to another. These cases therefore may be put into one class, and with them two cases in which I have used the forceps for face presentation, one case for presentation of foot with head & two cases for hand with head, as cases of inefficient labour, labour requiring additional power.

I. Puerperal Eclampsia.

I have had in all 8 cases of Puerperal Eclampsia. 1:375. One in a woman with her 11th child in whom convulsions began 8 hours after delivery & who died on the 6th day. The other seven were Primiparae in whom the convulsions occurred at the beginning of labour. In them all I used the forceps as a means of rapid delivery. Two of the Mothers died; four of the children were stillborn.

In only one of them cases were the convulsions anticipated and preventive treatment adopted. In this case there were general anasarca, Albuminuria and frequent headaches for nearly two months previous to the Confinement. Pregnancy however went, so far as we could judge, to the full time and with the advent of the pains the convulsions came also. The Woman survived but the child - a large well nourished male - was stillborn. In none of the other cases was there any dropsy.

In every case when convulsions set in I dilated the Os as rapidly as possible with the

fingers, ruptured the membranes and as soon as the os was sufficiently dilated to permit the introduction of the forceps the instrument was used.

The future of the cases that survived has been as follows:

I. delivered in 1876 - a woman with generally contracted pelvis, has since had some premature children under the care of another practitioner, but none have survived.

II. delivered in 1877 - had three other children, four in all when her husband died of Phthisis in 1884,

III. delivered in 1878 - has had three children since.

IV. " 1880 - was confined again of a living child in 1881 and then removed to America.

V. delivered in 1883 - Husband was Musician to a travelling panorama Has not been heard of since.

II. Funis Cases.

The second class of cases in which I have used the forceps are those in which the instrument was used with a view to save the child's life, viz. Funis

Lichman (399) quotes Scanzoni that funis presents once in 304 cranial cas.

(*) This was a case in which I was sent for by a nurse. I found the head wedged in the pelvis with a pulseless cord hanging down beyond it. It was explained that the practitioner who had been engaged in the case had tried to deliver the woman with forceps but she had proved so restless under his hands that he had left her in disgust. The delay had evidently been fatal to the child.

Presentations

I have not yet seen a case in which there was a pure funis presentation. In every case it has been a complication of a head presentation. In no case have I been able to remedy the prolapse.

I have met with it 7 times (1:435:2). None of the Mothers suffered from the complication but two of the children were stillborn.

In the first case I saw the labour was so powerful & expeditious that it was terminated successfully without any help whatever being required. In another case I turned & delivered by the foot. In the other five cases I used the forceps.

All were Multiparae

I. 1873. – born alive without any assistance
II. 1875. – Stillborn – forceps.
III. 1879. – Alive – "
IV. 1881. – " – "
V. 1882 – Stillborn – " (*)
VI. 1885. – Alive – turned by foot.
VII. 1886. – " – forceps.

Note on forceps in Funis presentations.

Although this is not the place to discuss the question of forceps versus Version in cases of this kind I may briefly state the reasons which induced me mainly to adopt what seems the heterodox method in such cases.

My own success in breech presentations has not been so great as to make me wish to change any case into a breech except in very favourable circumstances. These circumstances were illustrated in the penultimate case I had. The woman was a 14 para, the vagina & cervix were soft & dilatable, the pelvis was roomy & manipulation was easy. It was evident that the head would encounter no difficulty in its passage through the pelvis and the pressure on the cord would continue only a short time. But when the circumstances are different, the pelvis rather small in relation to the head (and this is usually the case in such presentations), the soft parts rather firm & unyielding - in such a case I prefer the forceps for two reasons: (1) that there is more power over

the progress of labour, and (2) that the head of the child is in a more favourable position for passing through the pelvic canal without delay.

In both forceps & version the cord will be compressed by the head. The question to be decided so far as the child is concerned, is, Which of them will compress it for the shorter time? In turning this is left very much to chance and in the event of delay which will be almost certainly fatal to the child it may be necessary to resort to the forceps after all.

III. Cases of Contracted pelvis.

Under the third head come all cases in which the difficulties of parturition are too great to be safely overcome by what are called "the unassisted powers of Nature," and as most perfectly illustrating those difficulties we may take the cases of contracted pelvis. Here we have in an extreme degree the difficulty of driving the foetal head through the pelvic canal which is present to some extent in every case, even the easiest.

System of Mid Wifery. p. 521.

Op. Cit p. 520.

Manual of Mid Wifery (Carter's Translation) p. 259 1st
op Cit p. 180.

Obstetric Medicine & Surgery II p. 582.

In such cases the general opinion seems to be that the forceps should be used either not at all or only in very slight contraction. Dr Leishman says "if the head "is at the brim and the distortion not excessive it will be "quite proper as we conceive to make a gentle attempt by the "long double curved forceps" but "the use of the long forceps "..... is generally regarded as a dangerous operation."

Dr Schroeder altogether condemns the use of the forceps in such cases and declares that forceps in contracted pelves causes a maternal mortality of 30 per cent.

Dr Barnes, who I suppose has as great faith in the forceps as any of our leading obstetricians allows forceps or turning down to a conjugate diameter of $3\frac{3}{4}$ inches but below that leaves forceps out of the question.

Now there are two considerations which have always led me to use the forceps in spite of this teaching.

In the first place it is practically impossible to measure the conjugate diameter to within a few eighths of an inch in the parturient woman and the

practitioner has no correct test of the capability of the pelvis if he does not test it by the head of the foetus itself, and if he is to apply this test he must apply it in a genuine and not in a timid, hesitating, and therefore insufficient way. My practice has led me to believe that the lesions to vagina, bladder & rectum which are attributed to violence are more probably due to the effect of long continued pressure upon these soft parts. At any rate I have never seen either a recto vaginal or vesico vaginal fistula or a vaginal slough, and it is only reasonable to think that a force which acts only for a few minutes is much less likely to do injury than one which though it may be somewhat less in intensity is maintained in action perhaps for hours.

In the second place even if we could exactly measure the diameters of the pelvis such measurement gives us no satisfactory test of the capability of the pelvis for there is a factor which may distort the most accurate measurements. I refer to the

Op cit p. 266.

Op. cit I. 144–146

Researches in Obstetrics p. 145 ff.

distensibility of the pelvis.

The mobility of the pelvic joints in pregnancy is remarked upon by almost all obstetric authors when describing the anatomy of the female pelvis. Dr. Leishman says "a relaxation of the various pelvic "articulations is an essential physiological accom- "paniment of the pregnant state." Dr Barnes quotes a great amount of evidence to show the yielding of all the pelvic joints in the pregnant & parturient condition. Matthews Duncan quotes also the remarks of MM. Girard & Ansiaux "that in contracted pelves this change "in the joints takes place to a greater extent than in "well formed pelves."

I have been surprised to find that in spite of this accumulated & accepted evidence the mobility of the pelvic joints is practically ignored by writers on Obstetrics as a factor in parturition. I would be inclined to consider it a very important factor. The mobility of the sacrococcygeal joint is admittedly so. And it has seemed to me that

I found evidence of the importance of the mobility of the symphysis pubis & the sacro iliac joints in the marked erection of the right hipbone which takes place as the head of the child is passing through the pelvis when the parturient woman lies on the left side. This erection seems to denote an increase in the capacity of the pelvis.

These two considerations have hitherto led me to use the forceps not merely in a "gentle attempt" as Dr Leishman phrases it but in a thoroughgoing way in every case of contraction that I have met with. Perhaps it is because I have as yet been so fortunate as to meet with only slight cases of contraction - though I suppose it would be unprecedented to have 3000 cases without a single case of extreme contraction - but my experience has confirmed me in the principle that in every case of pelvic contraction, however great, in which it is possible to seize the foetal head with the forceps that instrument should be thoroughly tried.

Braithwaite (xc. p388) quotes Burchell as giving 45 cases in 8000 = 1:177.

Op. Cit. II. 29.

I have had 11 cases in which the pelvis was noted as really contracted = 1:272.7. In regard to this it is startling to find Spiegelberg assigning a frequency of 14 per cent, or one in seven, to pelvic contraction. To enter on this however would involve a consideration of that subject which would be out of place here.

Of the 11 cases which were all delivered with the forceps no mothers died but three children were stillborn.

Note on the Forceps.

The forceps I have invariably used is a straight forceps 14¼ inches long from end of handle to tips of blades; with a handle of 5 inches, a straight shank of 3¼ inches and a curved blade of 6 inches long. There is a distance of ⅞ inch between the tips of the blades, a greatest distance of 2⅝ inches between the curved portions and a greatest breadth of blade of 1½ inch. Having never used an instrument with a pelvic curve my objections to it are based on merely theoretical grounds. These may be stated in this note.

It is claimed for the pelvic-curved forceps that it naturally fits the curve of the pelvis & that it more easily grasps the head at the brim. This is evident enough. But when this is said there seems nothing more to say in favour of a pelvic curve.

A forceps is not an instrument like a catheter which acts as a canal for carrying a fluid along a curved passage. It's not a passive instrument. It's chief function is not to be able to grasp the head easily, but to draw it - easily if possible - through the pelvis. It is an instrument by which a great amount of force is transmitted and you cannot transmit the force in a curved direction. Accordingly it is easy to demonstrate that in using forceps with a pelvic curve you spend nearly half your force in pressure upon the pubic Symphysis, which you by no means desire to do, and have only the other half of your force to effect what you desire, viz to draw the head in the direction of the pelvic axis.

In order to remedy this, Tarnier, instead of

returning as he might have done to straight forceps invented a pair traction forceps, i.e. he retained forceps with the pelvic curve and he added traction bars, thus making the instrument a double one, a curved instrument for obtaining a grasp of the child's head, and a straight instrument for pulling in the direction of the pelvic axis. A case is certainly conceivable in which such a double instrument might be useful but I think such a case must be a very exceptional one. At any rate I might be excused were I sceptical of its occurrence as I have not yet seen a case in which I could not seize the head at the brim with straight forceps.

How do we ascertain the presentation of the child? It is not by a curved instrument but by the straight finger, stretched if the head is at the brim to its fullest extent. And if the presentation of the child can be ascertained by a straight instrument I cannot understand why it should not be possible to grasp the head by a straight instrument likewise.

But in order to examine with the finger, especially

Spiegelberg Op. Ct. II. 568.

in cases of pelvic deformity you have often to bear with some force upon the perineum and in so doing you abolish to a certain extent the pelvic curve. In the same way I see no objection to pressing upon the perineum with the forceps if it is necessary to do so in order to get a good grasp of the head. But will this not rupture the perineum? I can only answer that I have not found it to do so. The worst ruptures of the perineum I have seen have been in rapid natural labours where the perineum was as it were caught by surprise by the advancing head, and in instrumental labours the pressure of the shanks of the forceps upon the perineum partially stretch it and prepare it for the greater stretching which will come when the head reaches it.

Again it seems to me that a pelvic curve is objectionable from the fact that it permits traction of the head in only one direction. If the head rotates while in the grasp of the instrument it is necessary to reapply it. Such a necessity does not arise

Lusk, Midwifery p. 369

with the straight forceps which maintains the same relation to the axis of the pelvis whatever be the rotation of the head under its grasp. And besides the mechanical objection that about half the force is lost through the pelvic curve there seems a real danger of injuring the maternal tissues by bringing the pelvic curve too far forward above the symphysis.

The objections to the straight forceps have been perhaps best summarized by Barnes in his "Obstetric Operations" and we may shortly consider them in detail

1. Difficulty of introduction of upper blade, the patient requiring to be brought near (not dragged over as Barnes puts it) the edge of the bed. This is not an objection worthy of much consideration provided that the forceps is suitable otherwise, since it is preferable in all cases & for many reasons to have the patient near the edge of the couch. When greater nearness is required it is easy enough to draw the sheet with the patient on it to the required distance without demanding any effort from her.

Spiegelberg II, 568 ff.

2. The 2d objection is applicable only to forceps whose curves start immediately from the lock and in the case even of this defective instrument it is probably in great measure imaginary for the curve of any instrument is always less abrupt than the curve of the head itself. In such an instrument as the one described above where the curve begins fully three inches from the lock the objection does not apply at all.

3. The 3d objection is the aptness of the straight forceps to injure the Sciatic nerve. It will be enough in reply to say that I have never seen a case of such injury.

4. The 4th objection, that the straight forceps is "usually" applied so as to press upon the portio dura does not apply to that instrument, for such a position of the blades is as unusual as it seems to be in the case of pelvic curved forceps. The blades so far as I have seen are only in exceptional cases applied to the transverse diameter of the head.

It is maintained moreover "that the forceps

Whenever possible should seize the head in its transverse diameter." If this then be an objection to the straight forceps it is equally an objection to a forceps with a pelvic curve.

5. The 5th objection that straight forceps is apt to cause vesico vaginal fistula I may also answer by saying "non vidi".

So far therefore as I can at present judge from a onesided experience supplemented only by the reading of Authors – the immense majority in our day – who advocate pelvic-curved forceps either exclusively or preferentially, the straight forceps when of sufficient length is the superior instrument both in its practical efficiency & in its compliance with the mechanical requirements of parturition.

Cases of Retained Placenta.

I have had 23 cases in which the placenta was either adherent or so slow of being expelled from the Uterus that I had to introduce my hand either wholly or partially into the Uterus for its removal.

Of these 23 cases (1:130·4) 18 were in Multiparae 5 in primiparae.

In one of these cases – a woman with her second child – the placenta could not be wholly detached and she died of septicaemia on the 9th day after delivery.

In another case – again a 2para – a woman who had had phlegmasia dolens after her former confinement, the Uterus was completely inverted by my traction on the cord and I cleared the placenta from its attachment before reducing the inversion.

Injuries to Pelvis.

I have had no case in which the Maternal Soft parts were injured so as to cause sloughing of Vagina

or rectovaginal or vesicovaginal fistula.

Neither have I seen any case in which the pelvic bones were injured except one. In this case the coccyx was broken away from the sacrum.

The woman was a primipara, the head of the child was delayed in the pelvis and was brought down by the forceps. As it passed the outlet I felt the bone fracture with a sharp snap.

On inquiry I found that when she was a girl she had fallen on the ice Her Medical attendant had said she had broken something. She had suffered a good deal and it seemed to me that Synostosis had resulted from destruction of the Sacro-coccygeal joint.

After second confinement in which labour was completed without assistance the fracture occurred again.

Phlegmasia Dolens.

I have had two cases of Phlegmasia. - One in

a primipara, aged 35, in whom the phlegmasia was much less marked than the pain for which she required frequent hypodermic injections of Morphia.

The other case was that dreadful one of Gastrec, probably cancerous ulcer, in which labour was induced as mentioned in a former part of this paper.

Puerperal Mania.

I have had two cases of puerperal Mania, one of which was due to chronic alcoholism. The woman - a 3 para - had suffered from an attack after her second confinement also.

The other case was inexplicable, and seemed more like a case of 'Chronic' puerperal fever, one of my cases of puerperal fever having resembled it in its purely cerebral disturbance, distinguished only by its acuteness.

Pelvic Cellulitis.

I have had two cases of pelvic cellulitis going on to suppuration

Of one which occurred in 1874 the notes I have are as follows: Mrs D. primipara, with small pelvis, delivered with forceps after a lingering labour, suffered from partial paralysis of the lower limbs with for a few days paralysis of the bladder. An abscess, which I considered pelvic in origin, formed in the back & was opened near the angle of the right scapula. A large bed sore & slough formed over the sacrum. In six months she was able to remove to England where she recovered and has since had children. There was an indistinct history of paraplegia in early life.

The other case was that of a multipara with her fourth child - a woman of phthisical family. The abscess was an exceedingly small one & contained not more than an ounce of pus. It was opened immediately below the junction of Poupart's ligament with the angle of the Ilium & seemed at the time of

opening to have no deep connection whatever.

Complication with Scarlet Fever.

In two cases the woman was taken with labour while her children were ill with Scarlet Fever & she was attending them. Both caught the infection. One of them recovered, the other died.

Long Intervals between Pregnancies.

I have had many cases in which there were long intervals between the children while married life still continued: One 17 years since former child; two cases of 12 years' interval; One of 10 years; One of 9 years; One of 7 years &c.

Complication with Tumour.

I have had three cases of labour complicated with Myomata of the Uterus. They were all multiparae.

In two the labour was completed without assistance and in the third forceps was used. In one

of the unassisted cases the mother died of metritis about four months after the confinement.

In all three cases the children were born alive and healthy.

Abnormalities of the Foetus.

I have had 3 cases of Spina Bifida – 2 cervical & one lumbar.

2 cases of Anencephalous monstra.

4 " Harelip.

3 " absence of left hand.

3 " Hydrocephalus.

1 " Ectopia of Abdominal organs.

1 " apparent absence of neck (lived 7 days.)

1 " Epispadias of which the description written at the time (1875) is as follows.

"Mrs A- primipara – child had a peculiar malformation " of penis. The scrotum & penis seemed properly formed " except that the upper surface of the penis was not

"Covered by skin but by mucous membrane as if the "urethra had been split open along its upper wall & "spread out. The urine issued from under the arch "of the pubis along this upper surface. - Early in "pregnancy the mother had heard of a neighbouring "Jew's child which had been circumcised and "died in consequence. Her mind had often "recurred to this and she had hoped that her "child would be "like the world." She was hysterical "and had slight hysterical convulsions both before "and after labour."

There were several children after the first, all rightly formed, but as this family went to America I do not know whether anything has been done for the deformity.

I have had one case in which the child - the woman's fourth - a girl - was born with two incisor teeth in the lower jaw. These were still present when the child was eight month old.

Although I have seen three cases of hydrocephalic children, and several cases of extreme distension of the foetal abdomen causing difficulty in delivery I have not in any instance required to reduce the size by operation.

In many cases again the cord has been long & wound many times round the neck, or on the other hand extremely short, but in no case have I had to cut the cord to facilitate delivery.

Conclusion.

I may conclude this thesis by a reference to the fact that I have had no case of serious post partum hemorrhage & no case of Pulmonary Embolism. My freedom from these dreadful accidents I am wont to ascribe to my habit of carefully & firmly bandaging every puerpera immediately after the expulsion of the placenta, and to my abstention from unnecessary interference with the maternal organs in the period of involution.

It is a very general habit to give Ergot after delivery to secure efficient Uterine contraction but I have not used it in a single instance. I have considered that wherever a purpose can be effected by Surgical means - using the word χειρουργία in its original sense - it is a work of supererogation if not of actual danger to use means which are not fully under control. And I have not hesitated in all cases to use a firm pad even though Lusk and others think "it serves no better purpose than to displace the "Uterus to one side."

Neither have I been in the habit of using Antiseptic vaginal douches either before or after labour, being convinced that Cleansing of the external parts was sufficient in ordinary cases and that vaginal & intra Uterine applications could be necessary only in exceptional cases, such as retention of part of the placenta or foetid odour of discharges.

Dr Thomas. Discussion on Puerperal Fever, New York 1883.

I fear the tendency of the present time is to unnecessary interference in the puerperal state & I would protest against the excessive subservience to a theory of infection which is yet in the stage of an unproved hypothesis especially when this theory would lead us into such extravagances of practice as have been advocated in some quarters.