Statistics of one thousand cases in obstetrics / by I. Harrinson.

STATISTICS

OF

ONE THOUSAND

CASES IN OBSTETRICS.

BY

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STATISTICS OF ONE THOUSAND CASES IN OBSTETRICS.

In bringing before you the statistics of one thousand cases in obstetrics, my aim is not to confirm or controvert the opinions of others, nor to establish tenets opposed to reputed authorities. I shall reason from the materials, which my own tables supply, and not on arbitrary assumptions or conventional reticences, accept the methods or embrace the conclusions of established writers; nor shall I blindly adopt the formulæ founded on numerical data. My endeavour will be simply to collate and to examine my own cases, adducing occasionally the testimony of my friends; and from them to draw lessons, which may be neither destitute of interest nor barren of utility.

My own engagements only are tabulated; for it is evident that, were I to include cases seen in the practice of others, such introductions would spoil any product as to the mean and relative frequency of any particular class.

I have chosen a thousand cases on account of the numerical facilities which such a number affords.

Perfect accuracy of detail I have endeavoured to obtain; but when it is remembered that information has to be elicited from other and in some cases unwilling witnesses, we must be content with approximations to absolute truth. For example, ascertaining a lady's age is not always an easy matter; again, the duration of labour cannot often be exactly ascertained: when the question is asked, How long it is since labour began? the reply may be, some hours; a few days; or, in some extensive imaginations, "the last three or four weeks".

The poverty of correct obstetric statistics has been deplored by a late writer in the *Psychological Journal*, in an article on Puerperal Insanity. He says: "The medical attendant, in the majority cases, has no interest in keeping the statistics of his practice with any accuracy." If each member, however, of this

Society has kept (and I trust he has) a record of his cases, then shall we be enabled to exhibit a combined experience, nearly equal to the entire recorded results of the Dublin Lying-in Hospital, amounting now to rather more than 60,000 cases. Let me express a hope that some heavy instalments from the treasury of this Society, rich in this material, may be speedily forthcoming.

Age. The following were the numbers of labours occurring at certain periods of five years.

Between 15 and 19 years	11	Between 35 and 39 years	192
Between 20 and 24 years	176	Between 40 and 44 years	80
Between 25 and 29 years	263	Between 45 and 49 years	9
Between 30 and 34 years	269		

The greatest proportion (above one-fourth) occurs between 30 and 34 years. The age of the oldest mother was 46; of the oldest father, 68; of the youngest mother, 16; of the youngest father, 16.

Months in the Year. The labours occurred in the following proportions in the several months.

January	93	April	67	July	82	October	89
February	68	May	97	August	76	November	91
March	85	June	78	September	82	December	92

November, December, and January, had more than any other three consecutive months. The smallest number occurred in April, and the largest in May.

Comparing the results of birth with those of conception, we have—

Months of birth.	Months of conception.		Months of birth.	Months of conception.	
January	April	93	July	October	82
February	May	68	August	November	76
March	June	85	September	December	82
April	July	67	October	January	89
May	August	97	November	February	91
June	September	78	December	March	92

Days of the Week. It was the opinion of the late Mr. Hooper of this town, that many more children were born in the early than in the later part of the week. The following table confirms this supposition. No doubt it is correct among certain classes, for reasons too obvious to be further insisted on.

Sunday . . .	148	Thursday . . .	155
Monday . . .	158	Friday . . .	105
Tuesday . . .	150	Saturday . . .	136
Wednesday . .	148		

Hours in the Day and Night. Classifying the labours according to the hours in which they occurred, we have the following result.

Hours.	No. of labours.	Hours.	No. of labours.
12 P.M. to 6 A.M .	. 270	12 A.M. to 6 P.M. .	. 214
6 A.M. to 12 A.M.	. 268	6 P.M. to 12 P.M.	. 248

It is pretty well known that most labours occur in the night; but I was not prepared to find that the next greater number was from 6 to 12 in the morning.

State of the Moon. The following is an arrangement of the labours according to the state of the moon.

			Labours.
New Moon.	Day of change	43	236
	Remaining period . . .	193	
First Quarter.	Day of first quarter . . .	37	252
	Remaining period . . .	215	
Full Moon.	Day of full moon . . .	35	253
	Remaining period . . .	218	
Last Quarter.	Day of last quarter . . .	20	259
	Remaining period . . .	239	

Has the moon anything to do with labours? "It is a prevalent opinion," says Dr. Lardner, "that births occur more frequently in the decline of the moon than in her increase. This opinion has been tested by comparing the number of births with the periods of the lunar phases; but the attention directed to statistics, as well in this country as abroad, will soon lead to the decision of this question."

The circumstance that gave rise in my mind to such an inquiry was, that our esteemed associate Mr. Workman, when in an extensive country practice, discovered that he was not only deprived of his rest, but also of the light of the luminary in question. The table confirms Mr. Workman's experience. I do not mean to decide whether, in my cases, the moon was a mistress or an agent, nor whether the conclusion is legitimate or the coincidences fortuitous. I do not mean to go in with the Greenlanders, "who imagine that the moon visits their wives now and then; that staring long at the full moon will make a maid pregnant." (Dr. Laycock.)

Perhaps there is sufficient in the subject to merit further inquiry; present results it would be equally unwise to build upon, and unjust to doubt.

Theory of Periods: Duration of Pregnancy. With regard

to the former of these subjects, it may be well to say here, that I hold with the catamenial method of calculation. Notwithstanding this, however, I have adhered to the old method of counting and expression; viz., by calendar months, as being at present more convenient. A diligent look out has not afforded me one case where I could unmistakably reckon the duration of pregnancy. The approximations have been towards 280 days.

I have no statistics bearing on Dr. Clay's opinion, that "the younger the parent, the shorter is the term of gestation."

The Number of Pregnancies is shewn in the subjoined table.

Pregnancy.	Labours.	Pregnancy.	Labours.
First . .	272	Eighth . .	44
Second . .	186	Ninth . .	27
Third . .	140	Tenth . .	20
Fourth . .	102	Eleventh . .	10
Fifth . .	82	Twelfth . .	5
Sixth . .	56	Thirteenth .	5
Seventh . .	48	Fourteenth .	3

The numbers from the first to the fourteenth diminish in a gradual ratio.

The Mean Duration of Labours in hours is shewn in the following table.

Number of Pregnancy.	Whole number.	Males.	Females.
1	11·62	11·10	12·14
2	6·08	6·32	5·88
3	5·88	6·22	5·53
4	4·90	5·02	4·78
5	6·03	6·93	4·94
6	5·15	5·66	4·46
7	6·02	7·54	4·78
8	5·91	6·06	5·64
9	5·46	3·78	6·80
10	6·40	10·75	4·02
11	6·23	5·40	7·06
12	11·40	16·	8·33
13	4·06	5·	3·82
14	4·33	5·	3·
Average . .	7·36	7·55	7·17

The first thing the table shews is what was known to most of us to our cost; viz., that first labours are the longest—as long again as subsequent ones. Twelfth labours are apparently an exception; but this probably in the small number of five cases is quite accidental.

I did not expect to find that in first labours the girls were a little longer about than the boys.

Sex of Children. The 1000 labours produced 1010 children, ten being cases of twins; 504 males and 506 females.

Presentations. The presentations were as follows.

Face to Pubes . .	15	Arm	1
Face	2	Breech	26
Occiput (and Hand) .	1	Feet	9
Head	834	Foot	3
Head and Hand . .	114	Knee	1
Head and Cord . .	3	Feet and Cord . .	2
Head and Foot . .	1		
Total Head and varieties	968	Total . .	42

It will be seen in what a majority the head with its varieties presented. I regret not to have noted in my early cases the presentations of the head in the second position. It has been noticed to be more tedious than the first position, for which the reasons are not very obvious. Having ascertained that the head presented, I have been content, and have not attempted that refinement of touch which it appears some possess, in immediately telling its position, when the tip of the finger can scarcely be introduced within the os uteri. I have judged the position of the child by its mode of exit; therefore, I am quite unable to deny or confirm the opinion of Nägele, that the third position merges into the second, and the fourth into the first; and to say whether the face to pubes presentations are the rule or the exception in the third position. I think it may safely be affirmed that the head may come down, in certain cases, in any position.

I cannot agree with Dr. Ramsbotham, when he says, speaking of the third and fourth (his fifth and sixth) positions: "These irregular positions of the head are frequent causes for the necessity of instrumental interference."

Division of Labours. The classification adopted is—

1. *Natural:* including all the varieties of head presentation and also premature labours.
2. *Lingering.* This probably would be better called one of the varieties of natural labour, from which it differs only in duration. I cannot class it among the difficult labours, as in the Dublin division; because tedious labours may not be difficult, nor difficult tedious.
3. *Preternatural:* Presentations of the breech and upper and lower extremities.
4. *Complicated:* Twins; presentation of funis; hæmorrhage; convulsions; etc.
5. *Instrumental:* Forceps; perforation; and induced labour.

The tables afford—

Natural . . .	907	Preternatural . .	30
Lingering . .	15	Complicated . .	31
Instrumental . .	17		

Natural Labour. It might reasonably be supposed that in so very common an occurrence as natural labour there could be little difference of opinion either in the principles of the practice, or the practice of its peculiarities; yet how marvellous is the diversity, scarcely two practitioners agreeing in its management. I mean, not only in the management of those small matters which are—though these are by no means defined—usually considered necessary, but of others of more weighty import, which are either—if not unknown—unpractised, unheeded, or ignored. The great deficiency is in preliminary treatment. I fully agree with Dr. Tyler Smith, when he says: "Nothing will contribute more to the reduction of the dangers and mortality of obstetric practice than a careful attention to the disorders of pregnancy."

It would be foreign to my present purpose to enlarge on this subject now. On a future occasion, I hope to bring it before you in all its detail.

Lingering Labour.—Fifteen cases.

Number.	Age of mother.	No. of pregnancy.	Duration in hours.	Sex.	Presentation.
1	40	1	36	M.	Natural.
2	39	1	40	F.	Do.
3	32	9	26	F.	Do.
4	30	1	31	F.	Do.
5	25	3	26	M.	Do.
6	40	5	58	M.	Do.
7	39	8	35	M.	Do.
8	21	1	27	F.	Do.
9	41	12	29	M.	Do.
10	34	3	25	F.	Do.
11	34	1	28	F.	Do.
12	19	1	48	M.	Do.
13	21	2	30	M.	Do.
14	19	1	25	F.	Do.
15	25	1	36	F.	Do.

Arranging these lingering labours according to the number of pregnancies, we have—

With first child	8	With eighth child	1
With second child	1	With ninth child	1
With third child	2	With twelfth child	1
With fifth child	1		

According to the ages of the mothers, there were—

Age of mother.	No. of cases.
15 to 20	2
20 to 30	4
30 to 40	6
40 to 50	3

The mean age was 30½ years; the mean duration of labour, 33 hours; and of first labours, not quite 34 hours. There were seven males and eight females. The mean duration of labour with the males was 38 hours; with the females, 30 hours. The presentations were all natural.

The tables shew that more than half were first labours, late in life, having a range of duration of from 25 to 58, and a mean of 33 hours. All the children were born alive. One mother died from causes in nowise connected with prolonged labour, but from erysipelas, unfortunately conveyed by myself.

The table does not bear out Dr. Simpson's axiom, "that labour is dangerous according to its duration." I shall have to recur to this subject presently.

Preternatural Labours.—Thirty cases.

No.	Age.	No. of child.	Duration of labour.	Sex.	Part presenting.	Child dead or alive.
			Hours.			
1	37	1	5	F.	Right hand and cord.	Dead.
2	37	2	5	F.	Breech.	Alive.
3	36	4	2¼	M.	Footling.	Dead.
4	35	10	6	F.	Left knee.	Alive.
5	30	8	10	M.	Feet.	7 months; dead.
6	36	6	2¼	M.	Breech.	Dead some days.
7	25	1	13½	M.	Breech.	Died in birth.
8	33	9	5	F.	Feet.	Died in birth.
9	28	1	21	F.	Breech.	Alive.
10	31	1	7	M.	Breech.	Alive.
11	26	2	6	M.	Breech.	Alive.
12	31	4	4	F.	Breech.	7 months; dead.
13	38	1	50	M.	Breech.	Dead some days.
14	27	3	24	M.	Breech.	Alive.
15	22	1	9	F.	Breech.	Alive.
16	31	5	12	M.	Foot.	Alive.
17	24	1	6	M.	Breech.	Alive.
18	27	5	13	M.	Breech.	7 months; dead.
19	32	5	5	F.	Breech and foot.	7 months; dead.
20	30	2	2	F.	Feet.	Alive.
21	19	2	6	F.	Feet and head.	7 months; dead.
22	33	3	6	M.	Breech.	8 months; dead.
23	28	1	30	M.	Breech.	Alive.
24	22	2	6	M.	Breech.	7 months; dead.
25	28	1	32	M.	Breech.	Alive.
26	39	5	12	F.	Breech.	Alive.
27	37	3	2	F.	Breech and feet.	Alive.
28	33	5	2½	F.	Breech.	Dead; no scalp.
29	26	1	10½	F.	Breech.	Alive.
30	26	4	4	F.	Breech.	7 months; dead.

Further classifying these, we find the following results—

No. of pregnancy.	No. of cases.	No. of pregnancy.	No. of cases.
First	10	Sixth	1
Second	5	Eighth	1
Third	3	Ninth	1
Fourth	3	Tenth	1
Fifth	5		

There were 15 males, and 15 females.

The mean duration of labour was 10·3 hours: with the males, 14 hours; with the females, 6·6 hours.

Of the presentations, 22 were breech (two with feet): of these, 12 were alive and 10 dead; of the dead, two had been dead some days. Six were premature; five at seven, and one at eight months. Two died in the birth (one before I arrived).

There was one hand and cord presentation—child dead; and one knee—child alive. There were six footlings—two children alive, and four dead. Of the dead, two were premature (seven months), and two died in the birth.

The table does not include one dead breech presentation in "induced" instrumental cases.

One-third were first labours. The short mean duration of the labours, little more than ten hours, is worthy of notice. To lose a few children in these presentations by ov : much care for the mother, where there is such opportunity for rashness and for mischief, is pardonable. Only one case of arm-presentation in a thousand labours is a remarkably small proportion.

Complicated Labour.—Thirty-one cases.

The cases are thus arranged—

Twins	10	Prolapsus of cord....	3
Hæmorrhage	11	Tumour	2
Prolapsus of bladder	2	Hydrocephalus	1
Convulsions	2		

Twins.—Ten cases.

	Age of mother.	No. of child.	Duration in hours.	Sex.	Labour.	State of child.
1	35	4	2	F.	Natural.	Alive.
2	..	..	2.30	F.	Natural.	—
3	33	3	11	F.	Breech.	—
4	..	..	11.45	M.	Breech.	—
5	42	8	3	F.	Foot & knee.	—
6	..	..	3.30	M.	Foot.	—
7	28	2	3.30	F.	Breech.	—
8	..	..	4	F.	Feet.	—
9	31	4	3	M.	Cord & feet.	Dead.
10	..	..	3.15	F.	Feet.	Alive.
11	33	7	7	F.	Natural.	—
12	..	..	7.15	M.	Breech.	—
13	25	3	4	F.	Natural.	—
14	..	..	4.15	M.	Natural.	—
15	36	2	8.15	F.	Natural.	—
16	..	..	8.45	F.	Both knees.	—
17	37	6	6	F.	Natural.	—
18	..	..	6.30	F.	Breech.	—
19	32	1	48	F.	Craniotomy.	Dead.
20	..	..	50	F.	Forceps.	—

The ages of the mothers in the twin cases were—

Under 25 years	0	35 to 40	3
25 to 30	2	40 to 45	1
30 to 35	4		

Seven out of ten were between 30 and 40 years of age. The mean age was 33 years.

According to the number of pregnancies, there were—

	Cases.		Cases.
In first labour	1	In sixth labour.....	1
In second labour	2	In seventh labour....	1
In third labour	2	In eighth labour	1
In fourth labour	2		

The mean duration of labour was ten hours; but, deducting one remarkable case, the mean duration is little more than five hours.

Of the presentations, three natural in both; one breech in each; in two, the first child presented the head, the second the

breech; in one case, the first presented the head, the second the knees; in two cases, the foot or feet were present, one with a knee and one with cord; and in one instance, the first child presented the breech, and the second the feet.

Of the twenty children, seventeen were alive and three dead. Of the dead, one was dead before I arrived; on one craniotomy was performed; and to one (dead) the forceps was applied.

There were five males and fifteen females. In five cases, both twins were females: and in five others, one was male and one female.

Hæmorrhage.—Eleven cases.

No.	Age.	No. of child.	Duration in hours.	Sex.	Period.	State of child.	Presentation.	Hæmorrhage.
1	26	4	2	F.	Full.	Alive.	Nat.	Before, and with placenta.
2	43	5	3	F.	7 mos.	Dead.	Nat.	Concealed accidental.
3	19	1	6	M.	Full.	Alive.	Nat.	With placenta.
4	37	7	16	F.	7 mos.	Dead.	Nat.	Placental presentation nearly complete.
5	36	4	2	M.	Full.	Dead.	Feet.	Before, and with placenta.
6	33	9	4	F.	7 mos.	Alive.	Nat.	Partial placental presentation.
7	35	3	12	M.	7½ mos.	Dead.	Nat.	Concealed accidental; fatal.
8	38	7	8	F.	7 mos.	Dead.	Nat.	Concealed accidental; fatal.
9	36	7	3	M.	Full.	Alive.	Nat.	Concealed accidental.
10	39	7	27	M.	Full.	Alive.	Nat.	Partial placental presentation.
11	31	2	7	F.	Full.	Dead.	Nat.	After placenta.

Arranging the cases of hæmorrhage according to the number of pregnancies, there were—

	Cases.		Cases.
With first child	1	With fifth child	1
With second child ..	1	With seventh child ..	4
With third child	1	With ninth child	1
With fourth child ..	2		

The mean age of the mother was 34 years. The mean duration of labour was eight hours. Of the children, six were females and five males. Six were delivered at the full period; four at seven months; and one at seven months and a half. Five were alive and six dead. Of the live ones, one was born at seven months, and lived four days. Of the dead ones, two were born at the full period.

The varieties of hæmorrhage were:—before and with placenta, 3; concealed accidental, 4; placental presentations, 3; and after placenta, 1.

I must limit myself to a few observations on one form of hæmorrhage; viz., the internal. The table contains a summary of the rest. It will be remembered that in 1852, I read before this Society a case of a peculiar form of uterine hæmorrhage, which was unique, as far as my practice was concerned, and which had not then occurred to any other member of the Society. It was only incidentally named—not described—by some of the authors then enumerated. The case was published in the Association Medical Journal for 1853, and excited some interest. Professor Murphy kindly directed my attention to his *Lectures*, where this form of hæmorrhage was more particularly mentioned. In *Guy's Hospital Reports* for 1856, Dr. Oldham has written a very good paper on this subject, under the appropriate title of "Concealed Accidental Uterine Hæmorrhage", and has confirmed the expression of its rarity and its danger. Some well marked cases have been since published in the various journals.

In the latter part of the year 1852, I met with a second case, also fatal. Two slighter cases have also occurred: one in 1840, and the other in 1853.

The table does not include those rather frequent cases where hæmorrhage occurs occasionally during pregnancy without any obvious cause.

Convulsions.—Two cases.

1. Aged 31; married; first child; duration of labour, seven hours; female; presentation natural; from fright; treated by bleeding; recovery.

2. Aged 31; single; first child; duration of labour, eight hours; male; presentation natural; albuminous urine; treated by bleeding; death.

In both, the children were born alive.

That there should be only two cases of convulsions, is worthy of some notice. One occurred from fright, from the napkins at the fire becoming ignited during labour, and was readily controlled. The other was a case of great œdema, with albuminous urine, seen for the first time only the day before convulsions occurred, and before any curative measures were employed. I refer to those conditions of which albuminous urine forms so significant a sign. In other cases—and the signs and symptoms are usually amply sufficient for their detection—preliminary preventive treatment was successfully employed. I entirely dissent from Dr. Copeman, who has little faith in preventive means. My friends, Mr. Workman and Mr. Walford, have permitted me to add their testimony of the value of anticipatory treatment.

Of course, it must not be taken for granted that where there is œdema, there must necessarily be found albuminous urine. Extreme œdema is often present without albuminous urine.

With the second case, above referred to as my text, I read a long paper before this Society, in which I endeavoured to show—and fancied I succeeded in so doing—that a more comprehensive view should be taken of puerperal convulsions, mania, and the various forms of puerperal fever, etc., as the same cause, or combination of causes, might and did eventuate in the production, indifferently, of one or the other disease, according to the idiosyncrasy of the patient.

Prolapsus of the Cord.—Six cases.

This class includes all the cases where prolapsus of the cord occurred, though some belong to other classes. Amid the variety of complication, it will be seen that only one child lived. The class must be considered a very dangerous one.

No.	Age.	No. of child.	Duration of labour.	Sex.	Nature of prolapsus.	Result.
			Hours.			
1	42	5	15	M.	Cord and head.	Child dead.
2	25	3	4	M.	Cord with neck.	Child alive.
3	34	10	36	M.	Cord with head and hand; face to pubes.	Child dead.
4	31	4	3	M.	Cord and feet; 1st of twins.	Child dead before I arrived.
5	29	3	7	F.	Cord and feet; induced labour.	Child lived some minutes.
6	37	1	5	F.	Cord and arm.	Child dead.

Prolapsus of the Bladder occurred in two cases, which presented nothing remarkable. The bladder was not in the way.

Tumour. There were two cases of tumour.

1. Mother, aged 28; fourth child; duration of labour, twelve hours; child, a female; labour natural; child alive. There was a tumour of the left ovary. I did not find it in subsequent labours.
2. Mother, aged 32; first child; duration of labour, three days; child, a male; breech presentation. A solid tumour filled up the hollow of the sacrum, and extended into the cavity of the pelvis. Premature labour was induced at seven months with the second child; at eight months with the third child. The tumour was much the same. After this it disappeared; and the fourth child was allowed to go to the full period.

Hydrocephalus occurred in one case. The mother was aged 30; first child; duration of labour, 51 hours; child, a male; head presentation; perforation; two or three pints of fluid removed. The mother recovered.

Retroversion of Uterus was found in one case. It occurred in a woman, aged 39, with her first; it happened when she was advanced between three and four months. She was kept on her elbows and knees and the prone position for a fortnight; during which time it recurred three or four times. After this, it did not return. She was safely delivered at eight months; the child was alive.

Instrumental Labours.—Twenty cases.

No.	Age.	No. of child.	Hours.	Sex.	Operation.	State of child.	Cause of obstruction.	Presentation.	Period of pregnancy.	Result to mother.
1	38	1	28	M.	Forceps	Alive		Head	Full	Recovery
2	23	1	15	M.	Forceps	Alive	Loaded bowel	Head	Full	Do.
3	37	1	26	F.	Forceps	Alive		Head	Full	Do.
4	42	7	27	M.	Forceps	Alive		Head	Full	Do.
5	30	1	51	M.	Perforator	Died in birth	Hydrocephalus	Head	Full	Do.
6	32	2	3	F.	Induced	Alive	Tumour	Feet & cord	7 months	Do.
7	27	1	4 days	F.	Forceps	Alive		Head	Full	Do.
8	34	3	4½	F.	Induced	Died in birth	Tumour	Breech	8 months	Do.
9	24	1	24	F.	Forceps	Alive		Head	Full	Do.
10	30	2	16	F.	Forceps	Alive		Head	Full	Do.
11	45	11	7	F.	Perforator	Died in birth	Deformity of brim	Head	Full	Do.
12	42	2	20	M.	Forceps	Alive		Head	Full	Do.
13	35	1	12	M.	Perforator	Died in birth	Deep perineum	Head	7 months	Do.
14	31	1	51	F.	Forceps	Alive		Head	Full	Do.
15	24	1	10	M.	Forceps	Dead and putrid		Head	Full	Do.
16	21	1	24	F.	Perforator	Died in birth	Deformed pelvis	Head	Full	Do.
17	40	4	12	M.	Perforator	Dead some days	Deformed pelvis	Head	Full	Do.
18	35	3	12	M.	Perforator	Died in birth	Concealed hæmorrhage	Head	7 months	Death
19	32	1	48	F.	Perforator	Dead some days		Head	Full	Recovery
20	32	1	50	F.	Forceps	Dead some days		Head	Full	Do.

Omitting two "induced", there remain eleven forceps and seven perforator cases.

Analysing this table, we have the following results:—

Forceps cases:

Age:	20 to 30			4 cases.
„	30 to 40			5 „
„	40 to 45			2 „
Pregnancy:	First			8 „
„	Second			2 „
„	Seventh			1 „
Mean age of patients				31 years.
Duration of labour:	Shortest			10 hours.
„ „	Longest			4 days.
„ „	Mean			33 hours.
Sex: Males ..	Alive	4		5
	Dead and putrid	1		
„ Females	Alive	5		6
	Dead some days	1		
Causes of operation:	Powerless labour			9 cases.
„ „	Loaded bowels			1 „
„ „	Putrid child, etc.			1 „

Perforator cases:

Age:	20 to 30			1 „
„	30 to 40			5 „
„	40 to 45			1 „
Pregnancy:	First			4 „
„	Third			1 „
„	Fourth			1 „
„	Eleventh			1 „
Mean age of patient				31 years.
Duration of labour:	Shortest			7 hours.
„ „	Longest			51 „
„ „	Mean			23 „
Sex: Males ..	Died in birth	3		4
	Dead before birth	1		
„ Females	Died in birth	2		3
	Dead before birth	1		
Causes of operation:	Hydrocephalus			1 case.
„ „	Concealed hæmorrhage			1 „
„ „	Deformity of pelvis			3 „
„ „	Deep perinæum (child dead—seven months)			1 „
„ „	Child dead—1st of twins			1 „

The case of concealed hæmorrhage in which perforation was performed, and death followed, has been named elsewhere. In one forceps case intense intestinal irritation followed, from

impacted cherry-stones. The patient ultimately did well. All the rest recovered without any unfavourable symptoms. There was no case of injury to the soft parts; nor lacerated perinæum.

Induced Labour.—Two cases.

In one case labour was induced at seven months, on account of a tumour. The feet and cord presented. The child lived a short time. Labour was another time brought on at eight months in the same patient. The breech presented. The child died in the birth from want of assistance. The mother did well.

It will be remarked that the ages of both classes of cases are somewhat advanced, bearing a mean of thirty-one years in the forceps, and thirty-five years in the perforator cases; that of the eighteen cases, twelve (two-thirds) were in first pregnancies; that the mean duration of the forceps cases was thirty-three hours; of the perforator, twenty-three hours; that the children in all the forceps cases (alive at the labour) were preserved; that the forceps was used twice when the children were dead; that the perforator was used in five living and two dead children; and that the after illness was limited to a solitary case of intestinal irritation.

The influence of age must be passed over now. That two-thirds of the cases were first pregnancies, is a circumstance to be specially noted. The consideration, however, of this subject, involving as it does one of the most interesting inquiries in obstetrics—viz., the preparatory treatment of pregnancy—is much too important to be cursorily considered, and must be put off to a more convenient season.

The mean duration of the forceps cases was thirty-three hours; of the perforator, twenty-three; and of the lingering, thirty-three hours. You will not have failed to remark that there is a great range of duration; in the lingering, from twenty-five to fifty-eight hours; in the forceps cases, from ten hours to four days; in the perforator cases, from seven to fifty-one hours; the latter having the shortest time, the most limited range, and the smallest mean. There appears to have been no fixed rule followed here. In one case, perforation was performed in seven hours; and in another, I waited

four days before the forceps was applied. A principle, however, was obeyed, one immutable in surgery; viz., not to interfere before it is necessary, but when necessary, without delay, to interfere. As before stated, a lingering labour of fifty-eight hours may be perfectly natural; while in another case, it may be needful to perforate in seven hours.

I hold that it is opposed to all sound experience to attempt to lay down any absolute rule, to teach that the forceps shall be applied only after a long ineffectual struggle, and the perforator only after so many hours more, when utterly exhausted, as a *dernier ressort*. I hold that a comprehensive survey of the condition of the patient will show and does show the time when to interfere. This condition is curtly comprised in two words, "done up"; words as expressive of a state as its definition is difficult.

As regards the preference of craniotomy to the forceps, my rule has been this. When I could not get at the head with these forceps (Ramsbotham's), then I use the perforator. I do not mean to say that in some favourable cases, a dexterous operator might not seize the head when far above the brim with a long forceps; but such cases, suitable or successful, are the exception, not the rule.

It is laid down in books, as a fundamental precept, that the perforator, not the forceps, should be resorted to for the delivery of dead children. The reason assigned is, that the perforator is a safer instrument than the forceps. I beg to doubt the correctness of the supposition and the propriety of the practice. In a case of twins (before named), I perforated the first child, because I could not; and I did not use the perforator to the second, because I could get at it with the forceps.

When the necessity for the use of the perforator is in my mind clearly established, I have not hesitated, holding paramount the safety of the mother, to employ it, irrespectively of the child being dead or alive.

A very laudable desire has been expressed by Dr. Tyler Smith, on the desirability of abolishing the operation of craniotomy. It would be well indeed could this be accomplished; but, bearing in mind that the difficulties usually arise in first children, where previously we have had no means of ascertaining the exact condition of things, it is more desirable than

possible. After the first labour, when the difficulty has been discovered, then it would not only be culpable, but criminal, to neglect, as the chief means of averting so dire a necessity, the induction of premature labour. This was done twice in the same patient, when at the first labour a tumour was discovered. It is well for the interests of humanity that the dangerous facility with which this operation can be effected, is unknown—if it is unknown; and, if not unnamed, not fully described in ordinary channels. The manifold uses of warm water are not yet enumerated. Of its appliance and value in natural labour, I hope fully to speak at no distant period.

Premature Children born alive.—Fifteen cases.

No.	Month of gestation.	Sex.	Presentation.	Causes.
1	8	M.	Natural	Diarrhœa from eating sprats
2	7	M.	Do.	Syphilis
3	7	F.	Placenta	Preternatural presentation
4	8	M.	Natural	Hæmorrhage of mother
5	7	F.	Feet and cord	Induced labour
6	8	M.	Natural	Profuse liquor amnii
7	7	M.	Do.	Travelling
8	8	F.	Do.	Syphilis
9	7	F.	Do.	Phthisis
10	8	F.	Do.	Debility
11	8	F.	Do.	Fright from thunder
12	7	F.	Do.	Mental distress
13	7	M.	Do.	Debility
14	7	F.	Do.	Syphilis
15	8	M.	Do.	Debility

There were seven cases at 8 months; and eight at 7 months. Of the children, seven were males and eight females. All the presentations were natural, except two; viz., one placental and one of feet and cord.

[redacted] *Children born dead.*—Fifty-three cases.

No.	Month of gestation.	Sex.	Presentation.	How long dead.	Cause.
1	9	M.	Natural	7 days	Intrafœtal
2	7	F.	Do.	In birth	Concealed accidental hæmorrhage
3	9	F.	Hand and cord	In birth	Preternatural presentation
4	8	F.	Natural	3 days	Diseased placenta
5	9	M.	Funis	In birth	Pressure on cord
6	9	F.	Natural		Fright(?)
7	9	M.	Feet	In birth	Pressure
8	7	F.	Placenta	In birth	Pressure
9	7	M.	Feet	3 days	Diseased placenta
10	9	M.	Face	In birth	Pressure
11	9	M.	Breech	Some days	Diseased placenta
12	9	M.	Breech	In birth	Pressure
13	9	M.	Breech	In birth	Pressure
14	9	F.	Feet	In birth	Pressure
15	7	M.	Natural	14 days	Diseased placenta
16	7	F.	Do.	4 days	Diseased placenta
17	7	M.	Do.	4 days	Syphilis
18	9	M.	Do.	4 days	Diseased placenta
19	9	M.	Cord	In birth	Preternatural presentation
20	7	M.	Natural	Some wks.	Syphilis
21	7	F.	Breech	14 days	Syphilis
22	7	F.	Natural	14 days	Diseased placenta
23	8	F.	Do.	2 days	Diseased placenta
24	9	M.	Breech	Some days	Lingering labour: tumour
25	7	F.	Natural	Some days	Syphilis
26	7	M.	Do.	10 days	Syphilis
27	9	F.	Do.	10 days	Diseased placenta
28	8	F.	Do.	1 month	Syphilis
29	7	M.	Do.	Some days	Diseased placenta
30	8	F.	Breech	In birth	Induced labour
31	7	M.	Do.	6 weeks	Diseased placenta
32	7	F.	Do.	Some days	Intrafœtal
33	8	M.	Natural	Some days	Diseased placenta
34	7	F.	Feet and head		Syphilis
35	8	M.	Breech		Diseased placenta

36	8	F.	Natural		Diseased placenta
37	7	M.	Do.	In birth	Perforation : hæmorrhage
38	7	M.	Breech		Syphilis
39	9	F.	Natural	Some days	Intrafœtal
40	7	F.	Do.		Intrafœtal
41	7	F.	Do.		Intrafœtal
42	8	M.	Do.	In birth	Perforation
43	9	M.	Do.	Some days	Diseased placenta
44	9	F.	Breech	In birth	Pressure
45	9	F.	Natural	Some days	Twins
46	9	F.	Do.	Some days	Twins
47	9	F.	Do.	In birth	Craniotomy
48	8	F.	Breech	3 weeks	Syphilis
49	9	F.	Natural	Some hrs.	Stomach derangement
50	9	M.	Face to pubes	10 days	Separation of placenta from a fall
51	9	M.	Natural	Some days	Diseased placenta
52	9	M.	Do.	In birth	Hydrocephalus : perforation
53	9	F.	Do.	In birth	Perforation

There were at nine months, 25 cases; at eight months, 8; and at seven months, 20. There were 26 males and 27 females. The presentations were—natural, 32; lower extremities, 16; arm, 1; cord, 2; placenta, 1; face, 1.

It would appear that seven months' children are more frequent than eight months'. The preponderance of preternatural presentations in premature children, is in accordance with universal experience.

The causes of death in 53 still-born children were:—Diseased placenta, 14 cases; syphilis, 10; intrafœtal or non-ascertained, 10; accidents, 2—viz., lifting a heavy weight, and a fall, in both, inducing partial separation of the placenta; turning, 2; breech presentations, 3; fright, 1; presentation of funis, 2; face presentation, 1; want of assistance, 3; perforation, 5.

The cases of diseased placenta occurred in women labouring under a cachexia, natural or induced. Syphilis produced similar changes in the placenta and its membranes.

In the non-ascertained cases, there was nothing either in the fœtus, placenta, or mother, apparently accounting for death.

Deformities, Irregularities, etc., of Children.

Hypospadias	2	Contracted Intestines	3
Double Hare-lip and Cleft-palate	3	Conical head	1
		Born with two Teeth	1
Heavy children (one weighing 13 pounds, and the other 13½ pounds)	2	Spina Bifida	1
		Acromial end of each Clavicle absent	1
Cephalæmatomata	4		

Irregularities, etc., of the Cord., occurred as follows :—

Over the neck	151	Prolapsus	6
Arm and Shoulder	4	Diseased	3
Leg, Foot, and Ankle. ..	11	Ruptured	4
Thigh	4	Knots	7

The length varied from fifty-five to six inches. All were harmless deviations, with the exception of the cases of prolapsus, before considered. The diseased cases, where the cord was much thickened, were from syphilis. The ruptures occurred from sudden delivery while standing. There was no injury either to the mother or child. The knots occurred where there was no unusual length of cord, or quantity of liquor amnii. There were six single and one double knots.

The Placenta. I regret to have nothing to say about the diseases of the placenta, further than it was in that state usually called fatty, and with masses of blood, in a more or less advanced stage of transformation. It was obliged to be removed in five cases; it was battledore-shaped in seventeen, and putrid in one case.

Of the five cases of removal, three occurred in the first year of recorded practice. In all, save one, the child was born before I arrived; and in two the fingers were sufficient for its removal. In the great majority of cases, irregular contraction at the fundus uteri is the cause of its retention; and the proper management of the uterus, after the birth of the child, is the preventive remedy.

There is no case of adhesion of the placenta. In the earlier years of my unrecorded practice, notwithstanding the cautious hints of my much respected teacher, Dr. Robert Lee, of its rarity, I was meeting with this deviation rather frequently than otherwise, and congratulated myself on my good fortune in meeting with, and my dexterity in overcoming, such unu-

sual difficulties. A few more years experience, however, and a more careful attention to the management of the placenta, first compelled me to doubt, and then utterly reject, my former conclusion. I now must agree with what Dr. Lee *then* taught: "I never met with a clear unequivocal case of morbid adhesion."

These cases are usually described as contractions of the uterus, with morbid adhesion of the placenta. How can such a combination exist? Looking at the large surface which the placenta occupies in the fully distended uterus, it would appear to be impossible for contraction to occur, without at the same time separating the attached placenta. We may conclude, therefore, that if there be contraction, there cannot be adhesion; and if there be adhesion, there cannot be contraction. Also, the membrana decidua is not liable to adhesion.

I am fully aware of the deceitful feeling communicated to the fingers in getting away a placenta from a contracted fundus. In such cases, the evidence of the fingers is to be more than doubted—it is to be disbelieved.

I do not mean to deny that morbid adhesion may occasionally exist in greatly diseased states; but to assert, that in the great majority of cases there is no adhesion, but simply incarceration.

After-illness occurred as follows:—

Intestinal Irritation - - - - -	14 cases.
Uterine Phlebitis, with ditto - - -	1 „
Phlegmasia Dolens - - - - -	3 „
Irritation from Morbid Infection - -	1 „
Mania - - - - - - -	1 „
Variola - - - - - - -	1 „
Rheumatic Fever - - - - -	1 „

This class includes only the graver manifestations of mischief. Duration of labour here also does not appear to be the exciting cause of after-illness, as the mean was only eight hours.

Some of the cases of intestinal irritation were very severe; often, doubtlessly, confounded with, and not readily distinguished from, cases of puerperal fever.

The morbid infection arose in this way. While making a

post mortem examination, I was called to a labour. Intense irritation followed, and she narrowly escaped with her life.

Only one case of uterine cellulitis is reported. Swelling of the left iliac region followed, and it was three months before the patient was quite well. A profuse discharge of pus suddenly occurred from the vagina.

Death occurred in nine cases.

No.	Age.	Pregnancy.	Duration of labour.	Sex.	Labour.	Death occurred after delivery.	Cause of death.
			hours.			days.	
1	33	3	7	F.	Natural	4	Abdominal inflammation (epidemic).
2	39	1	12	F.	Do.	6	Phlebitis from scarlatina.*
3	27	2	2	F.	Do.; 7 mos.; child dead.	8	Puerperal inflammation. Had intractable chorea when a child.
4	36	1	26	F.	Natural	6	Erysipelas by infection.+
5	21	1	8	M.	Do.	4	Convulsions: albuminous urine.
6	36	2	11	M.	Do.; face to pubes.	6	Scarlatina.(?)
7	35	3	12	M.			Concealed accidental hæmorrhage.
8	38	7	8	F.	Natural; 7 mos.; child dead.		Do. do. do.
9	34	5	12	M.	Natural	11	Fright‡ and exposure to cold.

* I was attending several cases of malignant scarlatina, and had opened an abscess in a fatal case immediately before seeing the patient.

+ Before and during the time of my attendance on this patient, I was frequently visiting a lady residing close by, who had erysipelas and retention of urine, requiring the frequent use of the catheter. Without doubt, I was the medium of communication.

‡ The nurse fell down drunk, and was reported dead.

Length of labour cannot be said to have induced these unfavourable results, as the mean duration was only eleven hours. In two cases, I was, without doubt, the unfortunate medium of morbid infection; and these two out of the nine may be considered as arising from preventable causes.

The case of convulsions might and probably would have been prevented by timely interference; and the one from fright, cold, etc., by greater care. The remaining five were beyond human control, I think, in their prevention; and, I trust, in their cure.

The list, as a whole, is sufficiently dark to demand a more vigilant attention to premonitory signs, and a more comprehensive view than is usually taken of anticipatory treatment.

Many curious and some instructive fragments remain to be considered; but I must now end.

This is my essay in statistics, and I shall consider twice before I attempt a similar task. It is not what I wished. You must be content with the failing execution of good intentions.

In the words of an able writer, I may conclude, *longo intervallo*:—"I must console myself with the reflection, that life is not long enough to do more than one's best, whatever that may be; that they who are ever taking aim, make no hits; that they who never venture, never gain; that to be ever safe, is to be ever feeble; and that to do some substantial good, is the recompense for much incidental imperfection."

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