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AN ANALYSIS of 1000 Consecutive MIDWIFERY  
CASES, met with in General Practice; with  
notes and literature on a few special cases.

By

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TOTAL CONSECUTIVE CASES UNDER ANALYSIS 1000

Primiparae - 220

Multiparae -  $\frac{780}{1000}$

Average age of Primiparae - 24 - range 17 - 40

Average age of Multiparae - 30 - range 19 - 50

ABNORMAL PRESENTATIONS:-

Face 2

Face to pubes 59

Brow 2

Breech 23

Transverse 8

Twins 10

Prolapse of Cord 5

LOP in Multiparae 39

LOP in Primiparae 20

HAEMORRHAGE:-

Accidental - 3

Unavoidable - 1

Post partum - 6

(1 after twins, 5 in Phthisical Patients)

Secondary - 1

Lacerated perineum	251
Complete tears of the perineum	5
Deformed pelves	2
Pendulous Belly	1
Manual removal of placenta	45
Version	8
Forceps	198
Abortions	175

PRESENTATION OF TWINS:-

LOA & Breech	6
Both Breeches	3
LOA & LOA	1
Multiparae	9
Primiparae	1

SEXES IN TWINS:-

Male and Female	4
Males	1
Females	5

(The above all alive at birth; in the case of Twins when both were males, both children suffered from Talipes Equino-Varus)

Eclampsia	-	-	3
Septicæmia	-	-	8
Placenta prævia	-	-	3
Post partum hæmorrhage			6
Embolism	-	-	1
Ruptured Uterus		-	1
Mania	-	-	1

INFANTILE CONDITIONS:-

Anencephalus	2
Cephalhoematoma	1
Cleft Palate & Harelip	1
Cleft <del>W</del> ould	1
Ophthalmia	3
Talipes	3
Imperforate Anus	1
Deformed Hands	2
Hypospadias	1

Fractures:-

Thigh	1
Arm	3

Stillborn the result of delay in passages .... 9

Stillborn the result of condition of passenger 5

Males 486.....Females 514.

CAUSES OF MATERNAL MORTALITY:-

Eclampsia

Rupture of Uterus

Pulmonary Embolism

Placenta praevia (anaemia)

Phthisis

Pneumonia

Cardiac Syncope

Sapraemia

Septicaemia

Chorea Gravidarum.

Total 20

Months during which confinements took place during period under analysis:-

January	101
February	69
March	90
April	76
May	75
June	138
July	76
August	75
September	76
October	83
November	83
December	58



	Males	Females
January	54	47
February	30	39
March	44	46
April	36	40
May	39	36
June	64	74
July	38	38
August	35	40
September	36	40
October	40	43
November	42	41
December	28	30

COMPLETE INVERSION OF THE UTERUS:-

1 in 1000. Only 1 case occurred in 190,000 at the Rotunda. Denham had a case in 100,000. C Brann had no case in 250,000. Crosse in 1847 noted that in 28% of recorded cases of inversion death occurred in a few hours, that in 42% death followed later, and that in 7% the accident, <sup>led</sup> to a fatal result more than a year after its occurrence. 1 in 180,000 to 200,000 are the figures given by Eden. (Mid 1906 Edit).

Patient Mrs A - ., Multip. Aet 22. Tall and very spare, had one previous confinement ( a strong healthy male child which I attended) and which was perfectly normal, beyond that, she required instrumental assistance at the third stage owing to Uterine Inertia. On the present occasion I was called at 11 p.m. She had been in labour for over an hour - on my arrival, and before I had completely rendered my hands aseptic. She had a severe pain, and the child was shot into the bed. After freeing the cord which was ~~once~~ round the child's neck, and waiting a few minutes before proceeding to tie the umbilical cord, and which was a long one. I noticed a large globular mass projecting from the vulva. At first I mistook this for the placenta which had come away with the/

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the same pain as the child, but on closer inspection I found that the placenta was firmly adherent to the projecting fundus of the uterus. I now proceeded after tying the cord to separate the adherent placenta, which I found was attached centrally to the fundus of the inverted uterus, this I managed to do after a little difficulty. The raw surface of the fundus was bleeding rather profusely at several points, and after washing with weak Lysol solution, I administered chloroform and returned the fundus to its normal position without much difficulty. Packing the vagina and uterine cavity with Iodoform gauze for an hour. The Patient suffered from slight shock but quickly recovered under stimulants.  $\frac{1}{50}$  gr. Strych. Hypodermically and hot bottles to the lower extremities.

Douching with weak Lysol solution twice daily was carried out. A mixture of Fer et ~~Arum~~ cit and Tr Nux vom given, and in three weeks patient was about and feeling no discomfort. Six months afterwards there was not the slightest tendency to prolapse or displacement.

By Inversion is meant a depression of the fundus, which may result as in the case above noted of a complete turning of the Uterus inside out. This may arise artificially or spontaneously, most frequently in the former way. It is most/

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most frequently produced artificially by dragging on the umbilical Cord, the placenta being still attached.

Spontaneously it arises very rarely, 1 in 140,000 labours, usually it occurs in the flabby and relaxed uterus, and seems to be due amongst other causes to irregular spasmodic contraction of the circular fibres, it arises in these cases with the placenta still attached. The same condition sometimes occurs in the case of fibrous polypi.

The condition of Inversion may be either partial or complete. The result of it is, that the serous coat is enclosed inside the inverted sac, and the ovaries also may be imprisoned. While the mucous coat becomes external and forms the covering of the tumour. When it comes down in this fashion one finds that the mass presents a dark red or purple appearance, when recent, the placental site is raw and bleeding, but as a rule there is little haemorrhage. If the condition is not replaced the surface may slough and become gangrenous, and this sometimes occurs after it is replaced.

When Inversion has taken place there is usually profound shock, and it is sometimes difficult to rally the patient - the treatment then resolves itself into restoring the patient from the collapse, and then in replacing the inverted organ. Stimulants must be given as soon as possible; the replacement must be effected; if the placenta,

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placenta has not separated, it should be removed as quickly as possible. If the patient is able to bear it chloroform may be given.

The inverted organ is seized in the right hand, the left hand being placed just above the pubis and pressure is made upon the cup shaped depression which is easily felt. The organ is squeezed with the right hand and pushed up at the same time, pushing towards the right side of the promontory. After the uterus is reduced the Vagina may be plugged with Iodoform Gauze for an hour, and at the same time, <sup>firm</sup> pressure must be kept up in the uterus to prevent haemorrhage. When the plug is removed the patient should be kept on her back with the hips elevated and everything done to prevent straining.

Kreitman, Munch Med Woch Aug, 24 1897. Reports a case where he was called into a labour case, where the patient was a primip. Aet 22. The pains lasted about twelve hours, then became weak: flooding set in, yet the child was expelled spontaneously. The cord was twisted twice round its neck. A quarter of an hour later flooding again occurred. The Midwife could not detect the fundus above the pubes, and could press the parietes against the promontory. A mass was found protruding from the vulva, the midwife took it for the head of a second child. The flooding became severe, Kreitman did not arrive till one hour after/

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after it had set in, and the patient was then pulseless, restless and almost delirious. He detected the inversion at once, removed the placenta, and reduced the uterus, The patient died within two hours, subcutaneous saline injections were useless. The shortness of the twisted cord was the primary cause of the accident.

Stone. Amer, Journl of Obst Aug 1898 relates an instance of this rare complication of labour. The Patient aged 22 a primip had been married 3 years. She was of a highly nervous temperament, and had been treated for Viginismus. Owing to diminution of pains and exhaustion of the patient, delivery was completedb by forceps; the cord was round the neck once, and was slipped over the head with difficulty. The perineum was torn, and while waiting to express the placenta, preparations were made fpr suturing the perineum. After a few minutes it was noticed that the patient was pale, with a frequent pulse and that haemorrhage had started. The placenta was found in the vagina firmly adherent to the inverted uterus, from which it was removed with difficulty. The cord was of average length. The patient was now out from under the influence of chloroform, and within a few minutes developed the symptoms of profound shock. Unsuccessful attempts were made to reduce the uterus without/

without chloroform. A consultant was sent for, and when he arrived, one hour later, the inverted uterus projected beyond the vulva. The patient was then almost moribund, another futile attempt was made to reduce the uterus, but the patient died soon after. The writer suggests the following points as of importance in the etiology of the case:-

1. The nervous condition of the woman as shown by the previous history of Vaginismus.
2. The complete absence of pain during the greater part of the stage of dilatation.
3. The uterine inertia shown in the latter part of the second stage.
4. The difficulty in the removal of the cord from the neck of the child.
5. The adherent placenta.

Gunmert, (ibid) Monats F. Geburts U Gynak, Jan, 1899.

Relates 2 cases of total Inversion. In the first it was caused by a midwife dragging on the placenta, and was reduced after some difficulty. The patient Aged 29 and very stout, recovered. In the second, the labour (tenth pregnancy)

pregnancy)/ ended after a few pains, the cord was very short. The patient died before any attempt could be made at reduction hardly one hour after labour.

Leisse, reported a total Inversion occurring in a girl aged 15 after criminal abortion, though the precise nature of the malpraxis which caused the accident was never ascertained. Reduction immediately after the patient was seen failed; twenty four hours later it was effected by pressure under ether.

In British Medical Journal Jan. 23 1909 a case of acute Inversion is reported by Dr Holthusen. In this case uterine Inertia and shortness of cord are given as the probable causes. The child was delivered by forceps, the fundus, owing to the extreme shortness of the cord was unknowingly pulled upon.

Control of the bleeding was made by bimanual compression. Dr Penny of Cockermonth, reports a case in British Medical Journal, in which he attributes the predisposing causes to that immediately preceding the accident.

- (1) Dry Labour, the rupture of the membranes occurring at the onset of the pains.
- (2) The position was occipito-posterior. These two features together with
- (3) The large size of the child, amply accounted for the undue/



undue prolongation of the labour, and for the exhausted, flabby condition of the uterus at its close. The immediate cause of the Inversion was less easy to discover, as traction on the cord was not made. The adhesion of the membranes doubtless had some share in the causation of the accident. In this case there was entire absence of shock and collapse, <sup>no</sup> more than would necessarily attend the loss of a quantity of blood.

A case of complete Inversion of Uterus with complete Procidentia of the organ, was reported in British Medical Journal Oct 23 1897. Patient was Agd 27, somewhat anaemic fair and thin, active habits, confined <sup>of</sup> ~~to~~ her third child on Jan 13 1896. In both previous confinements there was marked uterine inertia, with tendency to post-partum haemorrhage, the first confinement being in Jan 1893, the second in July 1894; in the latter delivery, forceps was necessary. The present and third confinement passed off normally though it was tedious, the placenta being easily removed, there was little haemorrhage, and the uterus was well contracted. Everything proceeded satisfactorily until the afternoon of the fourth day. When the patient who had been straining at stool became markedly collapsed, pale, quick thready pulse dilated pupils &c. The uterus was found to be completely inverted. With regard to the cause of,

of the Inversion in this case. Evidently the patient was predisposed by lax uterine, muscular fibre, the fundus of the uterus had no doubt relaxed, resulting in a cup like depression, and in this predisposed state the muscular effort of defaecation brought about the mishap.

Switalski (Cent F Gyn., Jan 22 1898) relates the case of a woman, aged 36, 4 para, who aborted at the fifth month. there was considerable bleeding, and the placenta came away some hours later. She had repeated haemorrhages which led to her going into hospital, where total inversion was diagnosed. The fundus, inverted, lay in the vagina, there was half an inch of cervix left in proper position, with very thin walls. The Os externum had a diam of one inch. At the upper end of the uterus a pit with thick margins could easily be felt per rectum. Manual reposition under Chloroform was attempted, the cervix being drawn down by a volsellum, but this only resulted in the cervix being torn anteriorly up to the internal os with separation of the bladder. The posterior cul-de-sac was then opened, and a posterior median incision was made in the uterus extending from 1 inch from the Os externum to 1 inch from the fundus. The uterus was easily reinverted, the uterine wall was stitched up, and then the wound in the posterior fornix was closed, and the cervix/

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cervix repaired. A Microscopic examination of a piece of the uterine wall removed for the purpose showed degenerative changes.

Switalski thinks that the condition of the cervix should be ascertained before manual reposition is attempted. If unhealthy, as in this case, gradual reposition would be better. He has been able to find only two other cases of Inversion of the uterus after abortion.

## PUERPERAL ECLAMPSIA

Eclampsia Gravidarum, Parturientium vel Puerperarium;  
Fr. Convulsions des Femmes Enceintes et en Conche; Ger  
Eklampsie in der Schwangerschaft und im Wochenbett.

Definition:- Epileptiform convulsions of a peculiar  
kind, characterised by loss of Consciousness and  
sensitivity, together with tonic and clonic spasms;  
occurring in the later months of pregnancy, during  
labour or after delivery, and directly connected with  
these states; and causing great danger to the lives of  
both Mother and Child.

Case. A. Mrs C - ., A healthy looking primipara, Aet  
21. She was apparently in the best of health and had a  
supper of sausages. On the following morning she  
complained of severe headache. Was very heavy and  
listless. About midday she was seized with severe  
abdominal pains. When I arrived I found her in a  
convulsion, her tongue bitten, temperature 103° F. Os  
fully dilated and head presenting. Forceps were applied  
and child delivered immediately, a large quantity of  
fluid escaped. She was soon in another convulsion, and  
I administered Chloroform for a considerable time, but  
the convulsions kept on recurring at regular intervals  
of/

of about half-an-hour. I then gave her 30 grs each of Chloral and Bromide per rectum. The temperature fell to 100°F, but convulsions soon returned again, even after medicine was repeated. The following morning the temperature rose to 104°F and the convulsions kept on recurring every half hour. On the third day she was in a typhoidal condition, but with jaws clenched. On the fourth day vomiting of coffee grounds took place, and she died in a state of exhaustion. Post mortem rigidity set in a few minutes after death. The urine before first convulsion contained only a trace of albumen.

Case B. Mrs W - ., Aet 24, a primipara. She had been confined three hours previous to my arrival, being attended by a midwife. Patient had already had two fits, and while I was present had a third convulsion, after which she was semi-conscious, and had a death-like pallor. I at once injected  $\frac{1}{6}$  gr. pilocarpin, which produced very little effect. I also gave M.I Croton Oil, and ordered a mixture of potassium bromide and chloral hydrate. The patient was placed between blankets, and hot fomentations applied to the kidneys. She still continued to take convulsions at irregular intervals in all/

all about fourteen. The bowels acted well. Notwithstanding she remained in a state of complete unconsciousness, unable to take either nourishment or medicine until her death on the third day after her confinement. Her temperature kept about 105.F and her pulse was 130, and very weak.

The urine was loaded with albumen. Limbs very oedematous, conjunctivae very dropsical.

Case C. Mrs L. - ., Aet 40 Primipara. I first saw her on the day of her confinement. She looked very oedematous about the face, legs and hands. There was a fixed expression on her face and she seemed pre-occupied at times and vacant. I got a sample of urine which was loaded with albumen. After I had examined urine I returned to her and found labour had commenced. A head presentation with Os well dilated. I ruptured the membranes and a few sharp pains brought the child down to the outlet. During a pain the woman became convulsed, tonic and Clonic spasms being well pronounced and lividity over the whole body. She remained absolutely unconscious, even after the clonic spasms had/

had passed away. I was able to feel the clonic spasms of the child in utero. During a pause I delivered her on the back by means of Milne Murray's forceps, but this act brought on another fit, and on the birth of the child - a small one weighing 5 lbs. - I found that it also was in convulsions and remained so for a period of 15 to 20 seconds, the spasms passing away from both Mother and Child at the same time. The placenta was removed naturally. The patient remained unconscious for an hour and a half, having a fit at regular intervals of half an hour. She suddenly became somewhat violent at the end of this time and tried to get out of bed. I then injected subcutaneously  $\frac{1}{3}$  gr morphine and  $\frac{1}{80}$  gr atropine and with the exception of one fit, she remained quiet but unconscious for five hours. Then a succession of fits supervened, six taking place in half an hour. I further injected  $\frac{1}{4}$ <sup>gr</sup> morphine, the patient then seemed to fall into a sleep. She continued sleeping until morning, and had had no recurrence of the fits during the night. She woke during the afternoon and was able to recognise her nurse, and though dazed, was able to converse rationally. From this time she made a quick recovery. She had to have her urine drawn off for 3 days, after this she made an uninterrupted recovery.

The two conditions which favour the occurrence of Eclampsia/

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Eclampsia are (1) a first pregnancy, and (2) the presence of twins or hydramnios. The pathology of the condition is by no means certain, and it is therefore not surprising to find various theories have been brought forward to explain its causation.

The frequent association of this disorder with albuminuria had till recently given rise to the belief that it is the result of uraemia, but numerous cases have been noted in which albumen was present in the urine in large quantity without convulsions occurring. Cases have also been recorded in which no albumen was found in the urine, but it is probably present in every case.

The toxoemic theory of Eclampsia is the one that has most supporters at the present day. It has been shown that in women suffering from eclampsia the toxicity of the blood-serum is increased, and the toxicity of the urine is proportionately diminished, and it has also been shown that in these Patients there is a period after the cessation of the fits when the toxicity of the urine is again increased. These facts then go to prove that there is an accumulation of certain toxins in the blood of eclamptic Patients.

During pregnancy the presence of the foetus calls for increased metabolism on the part of the maternal tissues, and this is of necessity accompanied by an increased/



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increased production of excrementitious matters. In a perfectly healthy woman the liver and kidneys are capable of dealing with such an excess. If, however, for some reason the functions of the liver are, for the time being, interfered with, it may be assumed that various toxic matters will pass into the circulation unchanged and with their virulence undiminished. The presence of albumen in the urine may be regarded as one result of the action of such poison upon the renal epithelium, and the accompanying interference with the excretory functions of the kidney will lead to a further accumulation of these toxic bodies in the blood of the Patient. A point will at length be reached at which there is present a sufficient quantity of these poisons in the blood to set up convulsions and coma. Such a view is supported by the fact that the changes in the kidneys are frequently similar to those seen in patients dying of acute infectious diseases.

Baron and Castaigne have carried out (Arch. de M'e'd Exp'er., Septer. 1898) an important series<sup>26</sup> of experiments with a view to proving the foetal origin of puerperal Eclampsia. They find that certain substances injected directly into the foetus or the amnion are rapidly absorbed by the maternal organism, provided the foetus is living, but much more rapidly from/

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from the foetus than from the amnion. From this it would seem that the foetus secretes certain toxic substances into the blood and amniotic fluid. What these substances are it is not ascertained. If the foetus be dead, substances injected into either amnion or foetus do not seem to pass into the maternal circulation. This would seem to throw considerable light upon the various phenomena of eclampsia, and especially as showing that the death of the foetus is followed by cessation of the convulsive seizure.

Frequency of Eclampsia about 1 in 330 cases much commoner in primiparae than in multiparae. About 60 per cent of the cases begin during labour, and 20 per cent before labour, and 20 per cent during the puerperium. It is stated that 26 per cent is the maternal mortality.

**Treatment:-** As regards treatment in Eclampsia one finds a state of variation as striking as in the theories of causation. One condemns the administration of chloroform or obstetric interference of any sort, another praises both. One says "Empty the uterus" another says "don't". One pins his faith to Morphine, another holds his hands in/  
in/

in horror at the thought; one gives purgatives another objects to their use; and still further one administers thyroid Juice, another gives adrenalin. Rudaux in La Clin. April 17th 1908. writes that any treatment undertaken for eclampsia must be directed first against the toxic condition of the patient, and secondly against the convulsions and coma which are due to the action of the toxins upon the central nervous system. Eclamptic crises are usually preceded by the symptoms of auto-intoxication, vomiting, ptyalism, neuralgia and most frequently by albuminuria.

Vinary justly observes that there are malignant cases of eclampsia in which death is inevitable, all means of cure failing. There ~~are~~ no specific remedies in this disease, and no one plan of treatment to be constantly pursued.

Prophylaxis. The first points in prophylactic treatment are, the avoidance of constipation, and securing free action of the skin and kidneys. The bowels regularly emptied by saline draughts. Milk diet. When Albumin is abundant and headache, irritability, restlessness, vertigo, disturbance of vision &c. chloral does good. In grave and presistent albuminuria, no benefit having been obtained by hygienic and medical means, and eclampsia threatening, the artificial interruption of the pregnancy may/

may be clearly indicated. In case~~s~~ the convulsive attack occurs, prevent the patient from injuring herself, as she is very liable to bite her tongue. Keep it back by means of a napkin stretched between the teeth and held on either side

Kaltenbach advises in strong plethoric women with great cyanosis, that bleeding or venesection should be resorted too. Sir J. Halliday Croom, in my notes from his lectures, advises venesection, and says that he has got very good results from this, adding that this has only to be resorted to when the woman does not respond to other remedies, and when the eclampsia is well marked and the Coma profound.

Chloroform, is generally recommended, but its protracted use is objected to by some.

Elaterium and Croton Oil, given by the mouth.

Senna with sulphate of Soda or Magnesia per rectum.

Tincture of Veratrum viride, has long been a favourite remedy. Given hypodermically in doses of 10 to 20 mins.

Professor L. Mangragalli, Malan in British Medical Journal/

Journal Septr. 19th, 1908, p 811 has a long article on the treatment of Eclampsia by means of Veratrum viride, and strongly advocates its efficiency in modifying and stopping the Eclamptic fits.

Mangiagalli had in the last ten years, treated 100 cases of puerperal Eclampsia by the hypodermic injection of fluid extract of veratrum viride, with a maternal mortality of 12 per cent, and a foetal mortality of 43 · 37 per cent.

Contrasting the results of this drug with his experience in the previous twenty five years using other treatment, he concluded that to lessen the frequency and intensity of puerperal convulsions, or to suppress them, while waiting for favourable conditions which would permit delivery, no treatment was better than veratrium viride. He stated, as a fundamental precept, that small and repeated doses were to be preferred to large ones given at long intervals, and that the administration of the drug must be guided by the pulse. A strong, full pulse above 80 per minute indicated the use of veratrum, whereas when the pulse is rapid and small, and the arterial pressure but slightly raised, this drug must not be administered.

Case of Rupture of Uterus:- 1 in 1000

Mrs G - ., Multip. Had 7 previous tedious confinements, unattended except by an obliging neighbour. Had been in labour 24 hours before I was sent for. On arrival I found that she had been having violent pains.

Examination showed a thinning out of the cervix and cervical region over the presenting part which was the head. The patient being spare, one was able to recognise prominence and tension of the round ligaments.

Immediately after examination, there was a sudden cessation of pains and patient gave expression to a feeling of relief, but this was soon followed by a torrent of pains, at the same time the sound of the tear was distinctly heard. The abdominal prominence suddenly diminished - a sudden escape of blood came trickling away. The presenting part receded and could not be reached. Symptoms of shock and collapse followed almost immediately and patient soon sank. The rent could be distinctly felt high up, showing that the rupture was a complete one.

Statistics show that 75% die either at the time or soon after. The shortness of time did not allow of a Porro's/

Porro's operation being attempted.

This condition is stated to be not so rare as Inversion. It frequently occurs in normal labours when the pelvis is small or foetal head large. The rupture may be partial or complete, it is complete when the rent passes through the three coats. It is partial when confined to either the peritoneal or the muscular coats. When cases are seen early, rupture is very rare, about 1 in 2000 in this country. In other countries and America the proportion of rupture is greater. It has been held by some that rupture never occurs in a healthy uterus, and there is some ground for this belief, because in the greater bulk of cases in which it does occur, we have either a deformed foetus ( and in cases where women produce a hydrocephalic child. It is found that the uterus some: times ruptures about the 5th or 6th month during pregnancy) or that the woman has had a perfectly normal pregnancy up to that period when suddenly without warning she suffers very violent shock and dies very soon. On opening the abdomen, the foetus is found in the abdominal cavity and a great rent in the wall of the uterus. About 6 or 8 cases have been recorded. It has been shown how: ever that these so called ruptures during pregnancy was a rupture/

rupture of Interstitial Gestation. Rupture is more common in multiparae than in primiparae, and the conditions giving rise to it are:-

1. Hydrocephalus.
2. Monsters.
3. Transverse presentations.
4. Persistent rigid cervix.
5. Deformed Pelvis.
6. Tumours, Exostoses &c.

The commonest site of rupture is at the junction of the cervix and body. Sometimes the tear is exactly transverse but in most cases it runs more up to one side. The mode of rupture was first demonstrated by Bandl. In normal labour the uterus acts by drawing the cervix up to the fundus, in this way is developed the retraction ring. This dragging of the cervix acts secondarily upon the vagina. If there is no special obstruction to the foetal descent the presenting part is thus pushed through. Supposing there is some obstruction it often happens that the foetus makes no advance. But the uterus goes on contracting and ultimately the bulk of muscular tissue is drawn up over the fundus of the foetus while the cervix is thinned/



thinned out over the lower pole. The deviation between these two portions is very marked and can be readily felt through the abdomen. The uterus is now in a state of extreme danger and unless assistance is brought to it, it will give way at its weakest point. The weakest point is generally determined by the fact that some part of the tissue is pressed against the pelvis by the head. The rupture generally takes place at the junction of the two parts or nearly so, in most cases it begins at the left side of the uterus, but in some cases of transverse presentation the rupture may be central and run vertically. In cases of contracted pelvis on the other hand the tear is circular. So much so that the vaginal portion may be separated from the upper part.

Orthmann (Centralbl Gynak No 9, 1898.) recently read two interesting cases before a German Society. In the first case criminal abortion had been attempted in the fourth month ( patient 27, third pregnancy) In the right fornix a large hole was found with the membranes coming through it, there was signs of internal haemorrhage. Abdominal section was performed, a large haematoma in the right parametrium was broken up, and the ovum extracted. The patient/

patient recovered. In the second case ( patient 40, seventh pregnancy) there was a transverse presentation, and some unqualified person attempted delivery. Violent pain and collapse ensued. There was complete rupture of the uterus, which lay to the left, the child to the right. The uterus was totally exstirpated the laceration passed along the right side of the organ somewhat anteriorly extending through the cervix into the vagina and right parametrium. The patient died of peritonitis on the third day. The muscular walls of the uterus were unusually thick, even for pregnancy - a fact already observed in cases of rupture of the uterus.

Elliott B.M.J. 1898 reports a case of a confinement to which he was called. The patient had been several hours in labour; he found her very weak, and the pains completely ceased. He delivered by forceps. The infant, well formed and complete, came out perfectly straight, full length and rigid; rigor mortis well established. In removing the placenta internal examination revealed the ruptured uterus, a large tear existing in the left posterior position, caused he states by the fact of the infant projecting through the wall of the contracting uterus/

uterus. The woman collapsed and died within an hour.

J.J. Healy (Boston Med. and Surg. Journal April 21st 1898) gives details of two cases of spontaneous uterine rupture in full term labour. In one instance the liquor amnii had escaped some hours, and the head was not engaged in the pelvic brim. The patients friends refused to allow either forceps or ether until the woman was already collapsed. A dead child was at length delivered by forceps, and then it was found that there was a large transverse rent in the lower third of the uterus. Death of the Mother followed immediately on delivery. The infant weighed 15 lbs. In the second case the head was distending the perineum and the **occiput** had passed under the pubic arch, when suddenly the pains ceased, the head receded to the brim of the pelvis and the patient became collapsed. The child was delivered by forceps, great difficulty being experienced in the extraction of the shoulders, but the patient died. No cause could be assigned for the rupture.

Góth. of Kolosvár' Hungary, reports an extraordinary case of injury during pregnancy. The injury was caused by a calf, which struck the abdomen of a patient in the 7th month/

month of pregnancy causing laceration of the uterus.

Poroschin (Cent F Gynäk. Feb 19th 1898) comments on the want of exact knowledge of the cause of this condition. Most cases have been explained, either by the mechanical theory of Bandl or by structural alterations in the uterine wall, due to chronic interstitial metritis, fatty degeneration &c. There remains a minority of cases to which neither explanation will apply, and in this group Dawidoff has concluded that the accident is generally due to alterations in the elastic connective tissue of the uterus. He finds that in 7 cases of spontaneous rupture of the uterus, the elastic fibres were thickened, markedly shortened, and indistinctly outlined, with knob-like thickenings in the bends of the fibres. In the light of these researches Poroschin gives the following case:-

A patient aged 45 11 para, had a fall on her back two days before the onset of labour. After the fall she felt no foetal movements, neither had she any pain before labour began. Labour pains, at first weak, became stronger and more frequent. After several very strong pains, the patient, became pale, with lips cyanotic, and a pulse/

pulse of 120, hardly felt; at the same time she complained of violent abdominal pain. The membranes were ruptured, and blood stained amniotic fluid came away. After a few minutes a dead child was born by expression. As there was much haemorrhage the placenta was expressed by Credé's method. Under treatment the bleeding was arrested, but the patient gradually sank. A necropsy revealed a zig-zag rent,  $2\frac{1}{2}$  inches long, in the long axis of the posterior uterine wall; this rent did not involve the serous covering of the uterus. The author explains the rent as due to the sudden bending of the uterus in its long axis over the spinal column when the patient fell, so that the tissues tore on the inner surface of the organ. The bleeding partly loosened the placenta, and led to the death of the foetus. Under the influence of strong pains the edges of the rent were drawn apart, and led to the fatal haemorrhage. Microscopic examination revealed a complete absence of elastic connective tissue in all the sections taken near the rent. To this fact is attributed the readiness with which rupture was produced. The absence of elastic tissue is in turn explained by the age and repeated pregnancies of the patient.

H. Ludwig/

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H. Ludwig (Wien Klin. Woch 1897 Nos 11 -- 12) records nine cases of rupture of the uterus.

Charles S. White, in Amer. Journal Obstet. Septr. 1908. reports a case of rupture of uterus and complete inversion of uterus as a double complication.

Munro Kerr in Journal of Obstet and Gyn. of the British Empire, July 1908 deals with the causes, symptoms and treatment of rupture of the uterus, the article being based upon a series of 14 cases. The author gives examples of cases of insidious rupture where the classical symptoms of the condition are absent, other conditions occasionally simulate rupture. In one case of dystocia from pelvis deformity in a patient who had a bipartite uterus, the double swelling and the collapse suggested rupture of the uterus; the case proved to be one of accidental haemorrhage. The diagnosis between complete and incomplete rupture, except in the cases in which the child is evidently free in the peritoneal cavity, can only be decided by vaginal examination, and may even then be of some difficulty. The rupture of the uterus is often preventable, and the prophylactic treatment is therefore of importance. Cases in which the uterus has been previously/

previously injured by tears, incisions curettage or disease, are those in which especially rupture is liable to occur during pregnancy, and these should be kept under careful observation, while cases in which former labours have been difficult may rupture early in pregnancy as a result of previous stretching of the lower uterine segment, or to the giving way of previous unsuspected lacerations.

PLACENTA PRAEVIA

3 -- 1000. The first case Mrs M'D --, Aet 38 7 para, with her two last children she had trouble with "false pains" at six months. She was suddenly seized with flooding, and I found that she had lost much blood. The external Os was slightly open, admitting the point of the forefinger, but the cervix and the internal os was firmly closed and could only be very slightly dilated with force. A mixture of Iron and Ergot was given and haemorrhage ceased. On the following day bleeding recurred slightly, but on the succeeding day there was none. On the fifth day from the onset it came on again, but did not continue long. There was no recurrence for two more days, but then it came on more severely than ever. To save the mothers life, it was evident, that the child must be delivered as soon as possible: but with the Os in the condition stated and the whole organ high up above the brim the case was an awkward and difficult one. By means of bimanual manipulation I was able to reach the Os, and could insinuate one finger into the cavity, where it touched what I took to be placental tissue on the left side and extending over the Os, I was able to separate the attachment as far as the finger could reach. The cervix and/  
and/



and internal Os gradually dilated with the movement of the finger so that I was able to pass two fingers, but was unable to reach the further edge of the placenta. I therefore kept up a steady and increasing pressure from the cervix outwards. This process is slow and severe, but as the pressure is kept up the parts are felt to dilate. I felt sure that if I had taken away my hand the haemorrhage would have come on again, and most likely have proved fatal. All the time this pressure was kept on I was doing what I could to get more fingers past the internal Os, and in ~~the~~ course of three quarters of an hour I got four in, but the thumb was the greatest difficulty ultimately it was got in, and shortly after the knuckles followed, with the whole hand, I was able to separate the placental attachment in the whole of its extent. The membranes were punctured, and the placenta had to be taken away, the amniotic fluid escaping, and the membranes remaining in utero. The child's head was presenting. The uterus at this time began contracting periodically and the head descending allowed the forceps to be applied at once and the child delivered. The membranes were expelled immediately thereafter. The Mother was weak and almost pulseless, but with small quantities of stimulants frequently repeated, she made an/

an excellent recovery, with only a slight elevation of temperature for a few days.

Mrs C - ., the next case was that of a tall thin bright complexioned woman Aet 27, who had 5 previous normal confinements, at intervals not exceeding 15 months. I found the Os soft and admitting two fingers easily, with slight labour pains. Up to this time there had been practically no bleeding, but with the increase of pains bleeding began to be profuse. I then detected a bogginess on each side of the descending head. I ruptured the membranes allowing the amniotic fluid to escape, but as the descending <sup>head</sup> did not appear to arrest the hæmorrhage. I performed version, bringing down a leg and thereby arresting bleeding at the same time keeping a firm hold of the protruding leg, The placenta and child were delivered together. The child was soon restored to animation, and the mother did well for over two weeks, when she began to get anaemic, and died two months afterwards from anæmia and heart failure.

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The third case was Mrs P - ., Aet 30. Had one miscarriage at 3 months when en voyage to China. One full time child born in Singapore twelve months after miscarriage. A second a year later born in Scotland and a third thirteen months later. Patient was a delicate looking, small, thin, dark complexioned lady, with a good deal of domestic worry, and anxiety regarding her husband, who was a ship Captain in the China trading service, and was poisoned soon after the birth of her last child by the Chinese crew. She was in fairly ~~good~~<sup>g</sup> health during her last confinement beyond suffering from oedematous lower limbs. A week before the expected time of her confinement I was sent for and found that she had had a sharp haemorrhage following a slight pain. On examination I found that the external Os was firm and did not admit a finger, that the fornices were boggy and had a "wormy" feeling. I concluded that she had a placenta praevia, as there was no return of the pain or haemorrhage and my residence was only 50 yards away I decided to leave her. She remained quiescent for another week, when I was sent for early in the morning, as she had had a "rush of blood" I found the Os soft and able to admit a finger which came in contact with a soft boggy mass. I administered chloroform/

chloroform, dilated the os separating the placenta as in my first case, and then delivered child by version. Both mother and child did well.

Placenta Praevia. When the placenta is implanted on the lower uterine segment so as to completely or partially cover the Os internum. An implantation of the placenta of this kind occurs once in from 534 to 1564 cases, the average frequency is thus said to be 1 in 1000 cases. In my analysis the frequency has been 3 in 1000 cases and strange to say all within 6 months of each other. 1 to 1500 (Winckel) 1 to 1500 or 1600.

(Kaltenbach) Pazzi in Annali di ostetricia e Ginecologia No 5 1894 gives the proportion of 1 in 748. Hegar in 1863 (Monatsschrift für Geburtshülfe) stated that too extensive formation of the serotina may cause the placenta to project into the area of expansion of the uterus.

Hofmeier in 1890 (Die Menschliche placenta) concluded from the examination of the Uterus of a woman dying in the fifth month of a twin pregnancy that in "most if not all cases" placenta praevia originated from the development)

development of the placenta within the reflexa of the lower pole of the ovum.

Hart, states that it is a primary implantation of the impregnated ovum low down, or even over the Os internum. Kaltenbach (Lehrbuch der Geburtshülfe) holds that, if this were so the small ovum would pass into the cervical canal and be lost. The folded and hypertrophied decidua there would practically obliterate the Os Internum and thus implantation over it may occur disproving Kaltenbachs view. The probable theory is that the Patient has a large heavy uterus (Usually displaced backwards or forwards) so there is a large cavity for the mucous membrane to line, and there are few folds to catch the ovum; The ovum therefore rolls down the smooth inclined plane of the pelvis being caught at or near the cervix and the placenta develops there. Is is probably commonest in women who have borne several children in rapid succession. This rapid production of children producing subinvolution and chronic Endometritis. Placenta praevia is generally a thin placenta compared with the ordinary ones, but it makes up for its thinness by its wide extent. The cord is often vilamentous or marginal.

The Clinical features of placenta praevia are characteristic/

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characteristic enough. Sooner or later during pregnancy occasional severe haemorrhages occur. Frequently the first haemorrhage produces abortion but sometimes abortion does not occur and the haemorrhages recur from time to time during the later months, the most frequent occurrence of severe haemorrhage is about the 7th or 8th month. When the placenta is marginal it may be as late as the 36th week. The quantity of blood that escapes may sometimes be enormous, but on the other hand frequently the greater risk is associated with what sometimes occurs viz:- a continuous dripping of the blood. These haemorrhages are undoubtedly associated with partial detachments of the placenta, these partial detachments occurring in the vicinity of the cervix.

The actual cause of the bleeding. There have been two theories advanced. The first theory which is now practically given up was advanced by Sir J.Y. Simpson - his view was that the gradual opening of the cervix in the later months detached the uterus from the placenta and haemorrhages occurred. It has been clearly shown that this is wrong, because the blood does not come from the placenta - the true explanation was advanced by Barnes in which he pointed out that the lower uterine segment does not grow at the same rate as the placenta. The consequence is the placenta/

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placenta grows away from the uterus, tearing itself free from the uterus and opening the uterine sinuses, not the placental sinuses. Owing to the fact that the uterine tissue is bound down by the placenta, it fails to contract so as to close up its own vessels, so that from the uterine vessels the blood pours out. At the 7th month or thereabout an attack of haemorrhage is common. If the first haemorrhage is properly checked naturally or artificially - the condition may continue for some weeks without further increase of haemorrhage, then a second gush of greater or less extent will follow. In these cases the amount of haemorrhage which escapes may be sufficient to actually kill the patient straight away. On the other hand however some patients can lose an immense quantity of blood and yet recover, satisfactorily enough. When continuous haemorrhage sets in, even if the quantity is small the condition becomes more serious and it frequently happens that this continual dripping of blood cannot be checked except by emptying the uterus. In certain cases more especially in the lateral form there may be no haemorrhage whatever until labour sets in, and it does occasionally occur that in some cases where the placenta can be felt quite distinctly no serious/

serious haemorrhage can be seen to speak off.

As regards diagnosis, where the placenta is either central or marginal, the diagnosis is perfectly easy.

The gush of haemorrhage at once draws attention to the condition and on examination one finds that the Os is more open than it should be. This is caused by the fact that the placenta ~~is~~ growing tends to open the Os. In passing the finger through the Os, a soft boggy elastic mass is felt between the finger and the presenting part. If the haemorrhage has occurred from ~~the~~ <sup>a</sup> lateral placenta the diagnosis may be somewhat more difficult and the point one has to decide ~~between~~ is whether it is a case of accidental haemorrhage or placenta praevia. The practical result amounts to pretty much the same because as a rule the treatment in both cases if the haemorrhage is severe would be identical.

P.P. is rare in Primiparae - almost never occurs in women with a history of ~~p~~revious abortions, diseased placentae, or bad health.

The Prognosis is extremely grave, one out of every four mothers die, either during labour or in the week after. Two thirds of the children die during birth or before it, and ~~one~~ half of the remainder die within the first ten days. Apart from the question of severe haemorrhage the/



- the woman is exposed to enormous risk from Septicaemia for which there are several reasons:-

- (1) The raw placental surface is very low down.
- (2) The placenta is of wide extent, often partially adherent and hence parts of it are apt to be left behind.
- (3) The lower part of the uterus is so disorganised by the abnormal conditions, that it remains flabby and patulous.

~~Dr. James~~ Angus MacDonald reported in the Edinburgh Medical Journal Novr. 1873 a case of Twin pregnancy, the foetuses being transverse and each placenta presenting at the internal Os. He regarded placenta praevia with twins as a very rare anomaly, and asserted that "the expectation of the occurrence of twins with placenta praevia is only 1 in 44,500 cases of labour" and that of course the probability would be much less with both placentae presenting.

*Muller found it rare in plural pregnancy.*  
Barnes has spoken of it as not being uncommon, and Winckel states that plural pregnancy predisposes to placenta praevia, the accident in his experience being relatively/

relatively four times more frequent in plural than in single pregnancy. One of the most remarkable cases of placenta praevia is that given by W.J. Harris (Lancet 1863) A woman was twice pregnant with twins, and in each case had placenta praevia.

A case of Twin pregnancy with central placenta praevia was recorded in British Medical Journal Jan. 20 1900 by Collingwood Fenwick - in this case the placentae were both well formed, the first one showing where it had been broken by the hand when being peeled off, the second intact. There were <sup>w</sup>to distinct cords. The children, male and female were both dead. The Mother made an uninterrupted recovery. The case was interesting in that it presented a condition of double placenta praevia both complete and partial in its characters.

As regards treatment. One should act on the conviction that the case is dangerous now or prospectively, and aim at the Evacuation of the uterus. If the first sign of haemorrhage occurs before the 7th month one may justifiably temporise, if the haemorrhage is quickly checked. In such a case however the woman must be under constant supervision, and strict rest in bed should be enjoined. Give opiates to steady the circulation. Keep

the/

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the bowels empty. If the case occurs after the 7th month, never try to prolong the pregnancy. When serious haemorrhage occurs with a small Os puncture the membranes, if they can be reached and plug the vagina. One never has an Os small enough with a truly central placenta. In the case of a lateral placenta it may be possible to have the Os so small that this mode of treatment requires to be adopted. In this case the plugging of the Vagina must be carried out precisely on the same lines as for abortion, but the patient must not be left. The rationale is clear enough, for it allows the head or presenting part of the child to press the placenta firmly against the uterine wall. This gives one time and secondly it promotes spontaneous dilatation of the cervix. In the course of two or three hours after this treatment the pains will set in, and when they have fairly begun one must remove the plug. If on removing the plug the Os is found dilated, but the bleeding still continuing one passes the forefinger inside the cervix and separates the placenta as freely as one can, all the way round. The rationale of this<sup>is</sup> that it allows the lower part of the uterus to contract more freely and so check the haemorrhage. On the other hand if the dilatation is slow and the bleeding continuous, one should then push in a suitable/

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suitable sized Barnes' Bag, distend it and leave it till it becomes loose. As soon as the Os is large enough to admit the hand, one should pass the hand past the placenta and turn and deliver. With a marginal placenta, the rule is to **detach** the part of the placenta which projects beyond the Os. In the case where the placenta is central, it has been found necessary to cut right through the placenta, at the same time this is extremely inadvisable, and in the majority of cases one should detach one half of the placenta, selecting the half which will correspond to the legs of the child. Turn and don't deliver. In a few cases the Os may be dilated so completely that the head may be within easy reach, in which case forceps should be applied and the child delivered.

The post partum condition of the patient is extremely critical. Secondary haemorrhage is apt to occur. Exhaustion from previous losses, and predisposition to septicaemia. Consequently the patients strength must be maintained by stimulants and nutritive enemata, and the Vagina must be syringed out twice or thrice daily with suitable antiseptics. If any sign of septicaemia develops no time should be lost in washing out the uterus with 1-1000/

1-1000 Corrosive Lotion. Dr Barnes gives the following résumé of his method of treating placenta praevia.

1. Puncture the membranes; this disposes the uterus to contract.

2. Apply a firm bandage over the abdomen.

3. A tampon may be introduced to gain time, if it is necessary to do it. Watch, observe with vigilance.

4. Detach all the placenta adhering within the inferior zone, and always watch. If there is no haemorrhage, wait a little. The uterus may perhaps do what is necessary. If this fails, dilate the cervix with the hydrostatic dilator. Wait and watch. If the natural forceps fail, employ the forceps which gives the best chance to the child, or as a last resort perform version.

(5) Avoid as far as possible everything which disposes to septicaemia. There are four factors which dispose to it:-

(a) The bruising and other lesions of the uterus.

(b) The retention in the uterus of fragments of placenta or membranes or of clots.

(c) Deficient/

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(c) Deficient contraction of the uterus.

(d) Activity of absorption, increased by loss of blood.

All the causes are reduced to a minimum by following careful therapeutic principles. But there are still other special precautions, After the placenta is expelled examine it carefully to see if it is entire. if the uterus does not contract well and if blood flows, inject hot water temp. of 45° C, adding a little Iodin or Carbolic Acid, or else, if the haemorrhage persists, the perchloride or Iron, It would be more useful to repeat the uterine injections daily for a week. The activity of absorption indicates the use of a generous diet" Instead of Barnes' dilators some have used, for the induction of labour and at the same time to prevent haemorrhage, the ballon of Champetier de Ribes. Hammerschlag (Med Klin. April 26th 1908) estimates that 80 per cent of the cases of untreated placenta praevia are fatal, while, if correctly treated, the mortality sinks to, 7 to 10 per cent. The author disapproves of all methods of rapid and immediate delivery.

G. Fieux (Annales de Gynec August 1897) reports 5 cases of/

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of placenta praevia which had come under his notice. In the first two the treatment consisted in the use of the Champetier de Ribes bag and rupture of the membranes; in the next two, packing the vagina very tightly was first tried, and found ineffectual, while rupture of the membranes immediately arrested the haemorrhage. In the fifth case haemorrhage occurred at the sixth month of pregnancy, natural rupture of the membranes then occurred and the gestation nevertheless persisted for seventy days thereafter, a viable child being ultimately born without incident. Fieux, therefore sums up strongly in favour of rupture of the membranes as the best treatment of placenta praevia. Even when the placenta covers the Os uteri, he would still rupture the amniotic sac through the placenta: in fact this was done in the third case, although the leg of the foetus was also drawn down into the opening. The rupture need not be immediately followed by complete emptying of the uterus, as is learned from the fifth case.

Name Miss M<sup>rs</sup> —

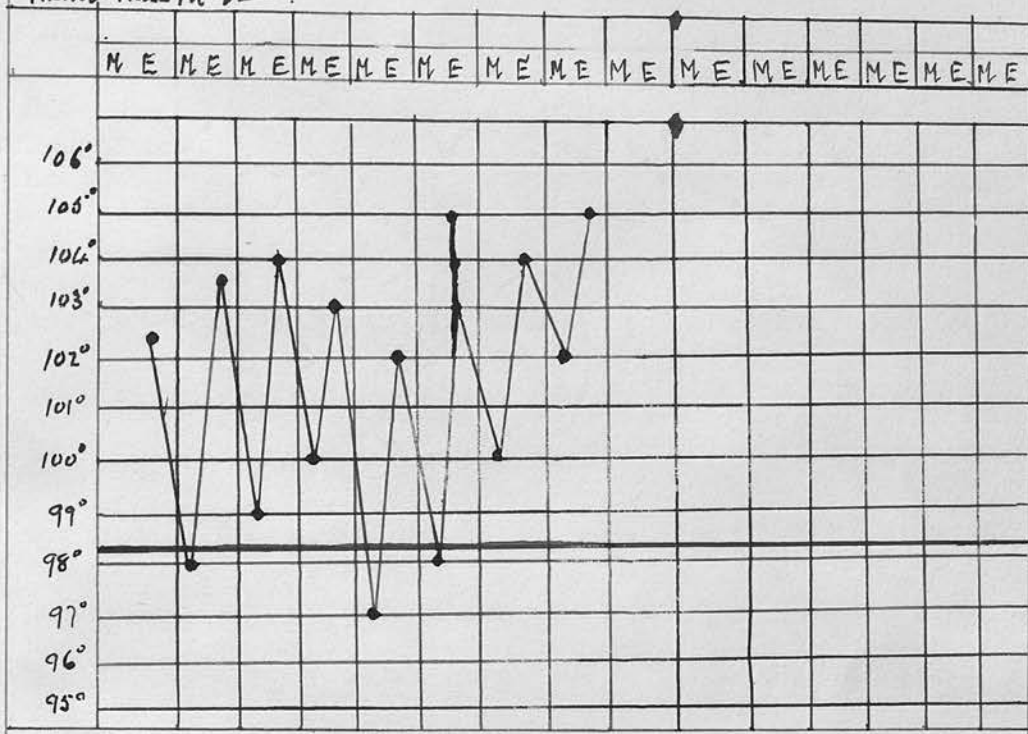


Chart. — Case of Chorea pyrexia. Death.



CHOREA GRAVIDARUM.

Miss M'E --, Aged 20 Primip. Had always been healthy. No history of rheumatism or other disease. Family history:- Father and Mother both alive and well, Maternal Uncle a congenital imbecile. When patient became pregnant, her mother states, she became dull and moody and worried greatly. Three weeks before her confinement, she had pain in her left arm with occasional twitching, and would let the dishes fall that she was carrying or washing. Her head also jerked occasionally. She was first seen by me at 10 p.m. when labour pains had commenced, but no dilatation of Os had yet taken place. The limbs on both sides were jerky, but the movements of the left arm and leg were most marked. Her tongue was also protruded and with drawn in a jerky manner. Labour pains gradually became more severe and at 3 p.m. a well developed child was born. The choreic movements then subsided and did not return until 24 hours afterwards, when they became more severe than ever, tongue became swollen and articulation was extremely difficult at times she could scarcely be retained in bed. The movements were/

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were always most marked on the left side. For a time Chlorotone seemed to have a considerable effect in allaying the movements, but this in time failed and although nearly everything was tried patient gradually became weaker and weaker and finally sank - eight days after birth of child. The temperature from the first day was always over 102° F and on the sixth day reached 105° F with pulse over 130.

No disorder of the nervous system is so manifestly aggravated by pregnancy as chorea. The characteristic choreic movements occasionally extend even to the uterus as in a case reported by Braxton Hicks in Transactions of the London obstetrical Society 1891 XXX 11 p 486. The patient was a young woman who had suffered from Choreia in childhood, the uterus which could be outlined distinctly in the abdomen presented marked alterations of form, accompanied by very evident choreic contractions. The uterine movements became less violent, as the patient was treated by rest in bed and the administration of arsenic. She was subsequently delivered in normal labour, making a good recovery.

M' Cann/

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M'Cann in Trans. London Obstetrical Society 1891 Vol  
XXX 111 p.p. 413 - 485 divides cases of chorea occurring  
in pregnant patients into cases of true chorea, of  
hysterical chorea, and a mixed form. It is a rare thing  
to find cases of chorea occurring in patients after the  
18th year, except during pregnancy. Primiparae are  
more susceptible to chorea than multiparae, especially  
to true chorea. In patients who have been free from  
rheumatism it is rare for true chorea to occur in any  
but the first pregnancy. The foetal movements appear to  
have an irritating effect upon the nervous system,  
consequently the first choreic movements begin about the  
3rd or 4th months of gestation. Acute rheumatism is  
the most immediate cause, next comes an hereditary  
history of distinct rheumatic taint. Epilepsy and other  
disorders of the nervous system predispose to chorea  
during pregnancy. Fright, Emotion, and as in the case  
recorded worry favours its occurrence.

Post-Mortem examinations of patients who have died from  
chorea during pregnancy show involvement of the Motor  
Cortex, the intellectual centres, and the spinal cord.  
Mild cases only show the cortex to be involved, the  
spinal/

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spinal cord least often. Abortion only occurs in severe cases. Cases of Chorea which do not end fatally frequently end in Mania, which may persist for a considerable time. Paralysis and delirium are also occasionally observed to follow chorea. When patient is attacked at term by Chorea, the risk to the child is very little. The earlier in pregnancy that chorea occurs, the greater is the danger to the existence of the foetus.

Choreic movements have been known to continue for five months after labour.

Pregnancy predisposes to the recurrence of Chorea, which may have been present in early life. The younger the patient the greater the tendency to a recurrence of Chorea.

C. Wall and H. Russell Andrews in Journal of Obst. and Gynaecol. of the British Empire June 1903 discuss the causes and treatment of chorea in pregnancy, and give a detailed account of 40 cases. In 16 out of the 37 patients, there was a previous history of rheumatism, 23 out of 37 had previously suffered from chorea, which in some instances was no doubt rheumatic in origin and/

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and in others may have predisposed to the latter attacks by causing instability of the controlling centres. One of the cases recorded was that of a Micro-cephalic, who had left School at the age of 14, in the fifth Standard. Her Mother was epileptic. There was no history of rheumatism in herself or any member of her family. Five only of the 40 cases ended fatally, 2 spontaneously aborted and in 3 abortion or premature labour was induced. Both patients who spontaneously aborted, and two of the three in whom labour was induced died. The proportion (5 per cent) to spontaneously abort is lower than the average (16 per cent) for normal pregnancies. The non-development of Chorea in many cases till comparatively late in pregnancy in part explains this, yet the proportion is so small as to show that there is probably no great tendency to spontaneous abortion in cases of Chorea.

The treatment recommended consists for the most part in ensuring sleep and quiet, and in providing good nursing and food especially carbohydrate food. The most satisfactory hypnotics stated were chloral hydrate or chlorolamide given in small doses and infrequently.

## TWINS.

In Britain the frequency of twin pregnancy is estimated at from one case in 90 to one case in 110.

Germany once in 84 cases. Belgium once in 90. Sweden Norway and Denmark 14 per 1000.

Ireland once in 60. Probably once in 80 may be a good average, but my average works out at once in 1000 cases.

Regarding the frequency of Presentations - Both heads seems to be the commonest. Next in order one head, one breech, then both Breech, then one head, one transverse, one breech one transverse. Both transverse. In my record Head and Breech came easily first. Then both breeches, and only a single case of both heads.

Multiple pregnancies indicate a retrograde tendency or the survival of a lower type. Twins are more frequent with multiparae than with primiparae, further the tendency is hereditary. The male seems to have a considerable influence in the production of multiple pregnancies. In most cases of twins the signs and symptoms are obscure, and there can be no doubt in the great majority of cases that the condition is not suspected until the first child is born, very often however)

however the patient complains of an increase of the ordinary disturbances of pregnancy, and sometimes if this is very marked, ones attention is drawn to the abdomen and it may be diagnosed. Twins are frequently premature. The risk from haemorrhage is very great, so that if one knows that a woman has got twins, one ought to be careful to be in close attendance. The diagnosis is practically a question of physical examination. On inspection one will find a large tumour, at 7 months it may seem like an eight month pregnancy, very frequently there is a sort of sulcus between the foetuses. This is very often seen in spare women.

Palpation is undoubtedly the most important element of the diagnosis.

Palpation combined with vaginal examination will often give one a perfectly certain diagnosis of twins.

Palpation frequently gives a redundance of small points. Twins are a probable condition when two heart sounds of equal intensity are heard at remote points. This is only of advantage where one has got two varieties of presentations. It is of little consequence when both heads/

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heads or breeches present. I have observed that one heart beats at a different rate from the other, consequently if one counts one and then the other, and find they vary, depend upon it there are two hearts.

As regards treatment the importance of post partum haemorrhage has always to be looked out for. In one of my cases haemorrhage was only arrested after severe measures had been adopted. This no doubt is due to the large placental area. The children are often badly developed. Hence special care is required if the children are to be preserved.

In no class of case is it so important to keep the hand on the abdomen during labour. As soon as the first child escapes, the uterus must be firmly compressed, the object of this is to prevent the possibility of haemorrhage, in the space left by the first foetus. At any moment the uterus may relax and the possibility of haemorrhage is very great. Tie both ends of the cord, after an interval of from 10 to 30 minutes the uterus contracts, with sufficient vigour to expel the second child, as a rule during this time one should not interfere in any way unless there is manifest haemorrhage. The second child is usually born with/



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with great rapidity, this is owing to the fact that the child is small and the passages are thoroughly dilated by the first child as soon as the placentae are born a good large dose of Ergot should be given, and the patient watched for at least an hour and a half.