Wilkinson

Thesis

Observations on Some Cases of Puerperal Fever and of Puerperal Inflammations

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Observations on.

Some Cases of Puerperal Fever; their relation to Pelvic Inflamation; their Source and Treatment.

It has often been said that the Bachelor of Medicine of the Scotch University of Edinburgh has in order to obtain the coveted degree of Doctor of Medicine only to write a Thesis, but this would seem to be the old story of the Sour grapes once again, for though the way is only by a Thesis, when the Thesis has to be written we find the path beset with difficulties of no mean nature. For one who possesses the time and means to remain a Student still under the Shadow of his Alma Mater, the task may not be so difficult. He is still the Scientific reader, can still be a disciple at the feet of the highest authorities on Medical subjects, can obtain from the Lips of his Professors counsel and advice. He has time to spare Rare and "interesting" Cases" to be studied in Hospital and his diagnosis in many cases confirmed by a Post Mortem, Easy access to Books of Reference, and in fact every convenience and facility to enable him to present a Thesis worthy of his University and of its Professors.

How different on the other hand is the production of the busy Practitioner, who has gradually merged into a lucrative practice who is sure to

be called to an urgent (?) case the moment he begins to study, who besides having to watch the course of disease in every conceivable form except perhaps that which is described in the Text Books; has to decide on the one hand how "Baby" is to be fed, when it is to be vaccinated, and how many teeth it ought to have through, and on the other hand to listen and give advice to wives about their husbands, to widowers about marrying again, and even in a few cases to young ladies about their lovers. His Books are few and the Library is sure to be difficult of access and thus the efforts which he puts forth in the endeavour to write a presentable Thesis, only end in a poor production which he feels ashamed to present; still while lamenting the position in which he is placed as regards writing his Thesis, a ray of hope gleams in as he remembers that many of the facts which were not long since clouded in darkness have been brought to the light of day by the observation of the Physician & Surgeon: and while the writer cannot hope to advance anything new, perhaps by recording cases which he has had in his care and by pointing out facts in these cases which seem to him to bear out what has already been advanced by writers, and by discussing the treatment in the light of these observations he may add somewhat

to the knowledge we now possess, and may help to combat the great Enemy of the Fœtus, disease.

The Subject which I have chosen for my Thesis is part of that branch of the Practice of Medicine which still is one of the least understood by the Accoucheur, and even by the Teachers of Obstetrics, viz the Puerperium. The reason of this lack of knowledge is easy to find viz that we cannot study the subject in a living being, and only rarely under its normal condition in the Post Mortem room, and it is only by examining the condition, which is present in the Human Female that we can advance our knowledge, and it is only very rarely that the opportunity to do so is given us on the dead subject, as most of the deaths which occur during that Period are either due to some abnormal condition of the ovum, we wish to examine or it is due to a disease which has an abnormal condition of the uterus conjoined with it; and thus the methods of procedure which we employ in practice are even yet based in many instances on mere suppositions of the changes that occur in the uterus after delivery, and how can we hope to make much progress in the study of this Pathology, when the normal conditions are still unknown to us, Dr Barbour has recently however in a paper read before the Obstetrical Society of Edinburgh considerably advanced our knowledge of the Puerperium in illustrating what the normal condition of the postpartum uterus is, and the condition of the lining membrane of it -

The Pathology

The Subject in detail which I have chosen is upon some points which seem of interest in tracing the origin of Puerperal Fever and of Puerperal Inflammation, and in finding the origin and cause of the disease I shall offer some remarks upon the treatment of a complaint which fortunately in the severe forms does not often occur; but which when once it has shown itself implants its symptoms firmly in the memory of the unfortunate practitioner who has to deal with it. It is not my intention to open up the discussion that has been brought up again and again as to whether there is a specific form of poison or in other words if there is a poison-germ which gives rise to puerperal pyaemia but what I wish to show is, that if there is a special poison germ, that the infectious agents from other diseases can give rise to symptoms, which are almost exactly similar and while the different poisons cause a disease, which in certain cases approaches so closely that their symptoms are indistinguishable from one another, in other cases we can trace a distinct difference varying with the cause — To state more definitely the line which I shall endeavour to pursue in this paper; I hope by describing the chief particulars of a certain number of cases, and by then discussing the points bearing on my subject, to bring out several features which seem both useful and interesting - I think perhaps the best way to follow out the intention I have in view will be first to give a brief résumé of the different cases

and then to state the various points in succession, and the different symptoms which indicate them.

Case I Wife 4; Age 24; Third Confinement.
She considered herself to be at the full time. For some 18 months before the pregnancy she had worn an instrument (Hodge's Pessary) There was nothing abnormal during the pregnancy. Labour commenced about 11 pm. the previous night - The membranes ruptured about 4 am. At 5.30 the os was the size of a 5/- piece the occiput presenting but being on the third position (ROP). The pains were strong, but the head was still above the brim - Labour continued slowly, the pains becoming very severe with very little advance into the pelvis, until with a very severe pain the head suddenly rotated into the 2nd position, and then under the pubis, and was quickly born about 6.30 am - Though weak and exhausted for a time, the patient progressed satisfactorily for two days, on the 2nd day she began to complain of after-pains which continued very severely. On the third day the temperature was 103.8 with a pulse of 95, and the skin was covered with perspiration - The pain in the hypogastrium of the abdomen was very severe, it was relieved somewhat by hot poultices and by hot injections of weak Condy's Fluid every 3 hours. On pressure in the right groin the pain was much increased and slightly in the left hypogastrial region. The lochia were scanty but of bad smell was noticed from them. The

lacteal secretion became rather scanty about the fourth day. – The pain continued more or less for about a week when it gradually subsided leaving great debility. The temperature continued above 100° for eleven days from the commencement, varying between 102·5 & 103·8 for the first four days and gradually lowering after that until at the end of Eighteen days it was normal. On Vaginal Examination on the 5th day there was considerable swelling and hardness on the right side of the uterus, and a slight feeling of thickening on the left; when last examined there was still some hardness on the right side.

The treatment employed during the acute period was hot antiseptic injections, poultices to the abdomen, Morphia pills to ease the pain and a mixture containing Quinine, Acetic & Digitalis in Effervescence. – Convalescence was very slow and protracted, but the woman in about two months from her confinement was considered well.

Case II W.S. L. aged 20 Primipara – Her pregnancy was quite normal until the last ten days, during which time she had not felt the movement of the child, the pains had commenced about one A.M. The membranes ruptured about 7 A.M. and slight pains continued during the day, at 8·30 P.M. the pains were still slight, and on examination it was found that the presenting part consisted of two bony edges of bone

enclosed in a soft skin about 1½ inches apart, which I diagnosed as the edges of the parietal bones separated in a dead child, from one extremity of this was a soft bag of semifluid material not unlike the feel of a distended scrotum. During a pain this burst and discharged a quantity of grumous material (the disorganised brain) The bones of the head not advancing I used the forceps and delivered with such ease that the Patient did not know that instruments had been used, a dead child with the head burst open and the skin quite black and the cutis peeling off. The Placenta followed very easily and was quite black and decomposed. There was no signs of disease about it. The Vagina was syringed out at once with hot water, and the next day three times with weak Condy's fluid & the same for the three following days and afterwards twice a day. On the second day there was considerable pain and profuse perspiration which lasted for a few hours, and subsided after the use of hot injections of weak Condy's. The Lochia continued as normal. The Patient progressed fairly well, but was rather weak until the end of the month when she seemed quite well. About a fortnight after this after she had been working a sewing machine, she complained of a good deal of aching pain in the right inguinal region, and on examination there was found to be a considerable amount of cellulitis which gave me the impression that it was old standing and had

been irritated & pelvic inflammation was set up; after several days in bed, and suitable treatment this gradually subsided and the woman recovered her health again –

Case III Mrs. B. aged 32 yrs; 5th. Child
The Pregnancy was fairly normal Labour was not difficult and may be considered as normal. There was some coitus perineorrhaphy after-pains; no rise of temperature the Pulse averaged 80. The Recovery was fairly good for a few days, and then was very slow with a feeling of great weakness and lassitude, a pale and flabby countenance, puffiness under the eyes and want of appetite. On abdomen in the uterine region about six weeks she began to improve and eventually regained her natural health

Case IV Mrs. B. aged 34; Sixth Child
The Pregnancy was normal & the Labour was rapid The membranes ruptured about 8 a.m. The child was born at 8.20 a.m. At 8.30 when I arrived the woman was kneeling at the bedside. The child which had been born on the floor. was still unseparated from the mother. Having separated this; by placing my hand on the abdomen, and the woman being in the same position and gently pressing downwards on the uterus in the axis of the brim during a pain the placenta was easily expressed. The woman being put

with bad head and bad symptoms except some after pains She got up on the 8th day, went down stairs on the 13th and was quite restored to health by the end of the month.

Case V Mrs. S. 22 yrs of age Primipara
Her pregnancy was characterised by the absence of any abnormality - Labour began about 11 p.m. and continued slowly. At 4 am. the os was the size of a florin, and rather rigid. Chloral Hydrate relieved this somewhat and at 7 a.m the os was nearly 3 inches in diameter. Shortly after this the membranes ruptured, and severe pains came on, and after rather a tedious time the child was born about 11 am.. The Placenta was easily expressed and the next day the vagina was washed out with Condy's Fluid twice. For two days she went on well. On the 3rd day the Patient complained of headache, want of sleep and general uneasiness after a dose of Castor oil and relief of the bowels, the symptoms were slightly easier but returned at night together with pain in the hypogastric region, and next morning the pain was still severe, and the temperature was found to be 103°. Liquor Ammoniae lowered this to 101.4 and hot poultices and injections with Carbolic pills internally relieved the pain and secured some slight sleep. On examination there was considerable tenderness on the left side in the broad ligament

and tenderness on pressure. There was none on the left right side, but some tenderness in the posterior fornix. The pain continued more or less, for three or four days. The temperature gradually subsided to normal, but not for eight or ten days, and after this the woman was left very weak, she gradually began to improve, but even at the end of six weeks was sallow and very anaemic and pale, and was so weak that she could not carry her baby across the room, although six weeks before she had been a very strong healthy woman. Iron tonic medicines seemed to do much good Quinine, Bark, Acids, Arsenic, Iron were all in their turn tried but all seemed powerless to give her strength. About seven or eight weeks after her confinement, she began to improve more rapidly and in a few weeks regained her strength -

Case VI Mrs. H aged 36 4th. Child

All her previous pregnancies and labours were normal and the recovery speedy. — Five days before labour began the woman from time unascertained cause suddenly fainted and fell. She complained of slight pain in the left side afterwards - Labour began in the early morning, and towards 8 a.m. she began to lose a good deal of blood at each pain. At 10 a.m. when I arrived the os was the size of a florin & at each pain a gush of blood was forced out. The membranes were artificially ruptured as the best

means of restraining this, as I considered that it was caused by a partially detached placenta & seeing that the haemorrhage was dangerous, the membranes were ruptured, and half drachm doses of the Liquid extract of Ergot were given every hour - The site of the placenta could not be ascertained. This treatment stopped the bleeding but the pains were very lingering all day. About 7 p m they became more severe and about 10.30 p m a dead child was born. It seemed to have been dead but a short time probably from the extra force exerted on it by the increased uterine contractions during its passage through the parturient Canal. The Placenta was easily expressed in about 15 minutes by Credé method There was very little loss of blood after the placenta was removed with which however came a large clot of blood There was no sign of disease upon it - though in the head a clot of blood about 1½ inches in diameter was found adherent to it about 3/4 in. from the margin of the Placenta. Injections of Condys Fluid (diluted) were used regularly twice a day, after the first day. The after pains were very severe the 2nd night and on the third day the patient complained of chilliness, a feeling of cold water running down her back, lassitude, and that she could not get to sleep. The temperature was as high as 103.5 - The pain was very severe over both right and left inguinal regions, but especially in the right. The lochia were not noticed to be bad smelling and were not less in

quantity - The following prescription was given

R. Quin Sulphatis grs XXIV
Acid Sulph Dil ℥ 40
Tinct Aconiti ℥ X
Tinct Cinnamomi ℥ ii

Aq ℥ vi 2das hor. sum. Aq ad ℥ viii

On the 4th day the temperature was 104° The woman had had no sleep. She had a great feeling of weakness and an achy feel in the back, also severe pain or pressure in the right and left groin. The discharge became scanty and began to be offensive. She had no appetite. Her pulse was 120. Poultices were applied to the abdomen and hot vaginal injections of diluted Condy's Fluid were used - On the 5th day the temperature was rather lower 103·8, and the pain not quite so severe, but the pulse was 135 per minute. The Lochia were now rather more offensive and became rather scanty, but did not cease altogether. The vaginal injections had been continued 3 or 4 times a day - Thinking that there was some decomposing substance in the uterus an examination was made, and the uterus explored with the finger - Its membrane could be felt adherent to the wall but the walls had a roughened feel and were rather puffy and swollen; a Double Canular was passed into the uterus, and attached to a Higginsons Enema Syringe filled with fluid and through it was gently and slowly injected about two pints of warm diluted Condys Fluid. This at first returned

quite brown, but at last returned the same odour as when it entered – In the evening the temperature had fallen to 100.6 and the pulse to 98 – The vagina was washed out every three hours during the day. During the examination it was found that on the right side of the uterus was a hard swelling, tender on pressure also swelling was felt in the posterior fornix and left side of the uterus.

On the 6th day after labour, the Canula was used again the temperature having risen a degree though the pulse was still below 100 – The lochia were still rather offensive, though very little of the intrauterine injection was decomposed. The pain was to a great extent gone, but still some remained especially on pressure in either groin. The hot poultices were continued on the abdomen, and simply vaginal injections of hot Condy were used three times daily, and internally a mixture of Quinine Digitalis and Iron were given

The recovery from this period was gradual, the chief complaint being the weakness, and for some six weeks slight pain was felt in the groin especially on pressure and a numbed feeling down the right leg. The injections were continued for about 10 days, more for the effect of the hot water than anything else

Two months after the confinement there was still great weakness and a hard lump was found on the right side of the uterus and a thickened band on the left

Side.

Case VII Wm B. aged 27 2nd Confinement

A Fairly strong woman Labour rather tedious owing to early rupture of the membranes. The pains began about 8 am. At 10.30 am the OS was the size of a florin, and the membranes ruptured - The Presentation and Position were normal. The termination of the 2nd stage was at 7.30 in the Evening. The Child was dead owing probably to the tediousness of the Labour, and the pressure exerted by the uterus in dilating the OS after the membranes had ruptured - The Placenta was easily expressed in about 15 minutes from the birth of the child, it was very dark, and there were no signs of disease about it. The mother seemed fairly well though rather exhausted after the Labour. The after pains during the latter part of the night and next day were severe but Opium and Ergot relieved them somewhat. The Vaginal Injections of Condys Fluid which were ordered, were through the neglect of the Patients mother who was nursing her were not given until the 2nd day - The Lochia were natural & the temperature normal on the morning of the day after Labour On the second day after delivery there was a good deal of shivering with great pain in the lower part of the abdomen - The temperature was 102.4; Pulse 108 The discharge began to be somewhat foetid.

On the third day after labour the temperature was 101.8 The Pulse about 140-150 (Heard and Counted carefully) and was very thready - On Examining the lungs the base of the left lung was found to be slightly more dull than normal and some crepitations were heard There was now great

shortness of breath and rapid breathing 35 - 44 per min and the prostration was very great there still being great pain in the hypogastric and inguinal region & the lochia very fetid a vaginal and intra uterine examination was made - The lining membrane of the uterus presented to the touch a very similar feel to that in Case 6 having rather a rough or perhaps to describe it better a kind of velvetty feel. No portions of membrane could be felt. There was induration around the uterus A double Canula connected to a Higginson's Syringe & filled with fluid having been passed into the uterus about two pints of weak Condy's Fluid was injected until it returned quite clear as at first it returned quite brown and decomposed This was repeated the same night but the prostration of the Patient was so great the next day that only vaginal injections could be used - With regard to internal treatment the main indication pointed to stimulation after the 1st two days during which time Quinine was relied upon either in the form of the Sulphate or combined with other drugs in the form of Warburg Tincture (in which I believe there are 53 ingredients besides Quinine) On the 3rd day half drachm doses of the Tincture Ferri Perchlor. every three hours were used - Then 3ss doses of Sulphuric Ether were given every hour alternating with 5 minims of Spts. Terebinthinae in tablespoonfuls of whisky but no treatment seemed to do any good The woman gradually became weaker and weaker and at last lost all control over the bowels

and died of Exhaustion The temperature during the whole of the illness was never more than 101.4 The pulse was very rapid and at times could not be counted the breathing was also rapid. No P. M. could be obtained

After this case I thought it time to discontinue midwifery practice but accidentally arrived at a case shortly after without being aware of its nature until I got into the bed room The following is a brief account of it

Case VIII

Mrs O'N 30 yrs (circ) 5th Child

The child was born on the floor before I arrived and the woman was Kneeling at the bedside when I arrived. The Placenta was easily expressed from the Abdomen The Woman was put to bed and Condy's fluid was used as an injection twice a day. The Woman recovered without any bad Symptoms -

Case IX Mrs W. aged 32 (circ) 4th time was confined of twins both girls The labour was fairly normal and both in the same bag of membranes. The first day she had a shivering with incessant Vomiting and some slight pain within 48 hours from this the Secundines each came out and local peritonitis ensued There was no cellulitis. After several days she gradually began to improve but for a long time was very weak owing to albuminuria which was left and which remained for several weeks —

Case X Mrs S. seemed three weeks after Case IX She had a normal labour and for the 1st day seemed to use the common phrase "as well as could be expected" but within 36 hours there was a rigor and a partial stoppage of the Lochia and the temperature was 102°-104° On examination cellulitis was found to exist - in the left broad ligament. The uterus was washed out and there was a slight abatement of the symptoms but the temperature again rose and did not fall. The woman became worse and worse and in about three days died of exhaustion During the latter part of the illness there was a kind of swollen boggy feel round the uterus but not sufficiently defined to say that fluid was present. No P. M. could be obtained. A fortnight after this the children in the house were taken ill with sewer gas poisoning and on looking to the drains they were found to be very defective

Case XI Mrs A. 28 yrs. Sixth Confinement. She had been in feeble health for some time and had a slow lingering labour. Twenty four hours after labour she had a temperature of 104° The Lochia were fetid but not suppressed There was no uterine symptom whatever Bronchopneumonia came on on the third day and the temperature rose to 105°. Cold wet sheets were resorted to to lower this temperature

with Quinine but although this lowered the temperature she gradually sank and died of Exhaustion On looking round the house it was found that the sink in the next room to that in which she lay opened directly into the main drain and subsequently we learnt that cases of Typhoid had occured from the same drain in neighbouring houses.

Case XII Wm B. aetat 24. 3 para

The eldest child had just recovered from Scarlet Fever She had a normal labour. Thirty six hours after labour she began to vomit violently It was doubtful if there was any rash but an inflamed throat was present The discharges became fetid and very acute pelvic peritonitis occured but no cellulitis. In the posterior fornix was a boggy feel as if there were effusion into the Peritoneum which had probably occured through the fingers could not detect distinct fluctuation The uterus was washed out three or four times after the symptoms showed themselves and after each irrigation the temperature fell for three or four hours when it began to rise again with rigors The uterus was then examined and owing to some coagulum at one portion the curette was used and a few shreds of membrane were extracted and relief of the symptoms was obtained for four or five

hours when the temperature was as high and the pulse as rapid as before No fluctuation could be felt in any part although the constant rigors and returning high temperature seemed to indicate that pus was present somewhere, probably in the peritoneum. The worst symptom was the incessant vomiting which only allowed her to take a very small? amount of food or medicine and she gradually sank and died about five weeks after her confinement. No P.M. could be obtained —

The Cases which I have briefly recorded above have occurred in the practice of two medical men that of myself and of my Partner The first eight cases were attended by myself and the four latter ones by my partner. Our Attendance was quite distinct so that it was impossible to have carried the infection from ourselves to the other. As regards the general surroundings of the cases recorded they are very similar in all their details Five people being all in fairly healthy condition Seven being the wives of well-to-do mechanics Three the wives of tradesmen, one of a wesleyan Minister and one of a Farm Labourer.

The dates should have been given.

In most of the standard writings on the subject of Pelvic Inflammation, the authors have stated that there is a very close connection between them inflammation and puerperal pyaemia. Did that they occur together but e.g: they say where a person by exposing herself to cold or by some undue exertion before the womb has returned to its normal size has set up inflammation, this inflammation may be so violent and give rise to such symptoms as may render it almost inseparable from puerperal Fever. They have not looked at it in another light and while not going to the other extreme and saying with some writers that all inflammations in the puerperal state are due to a septic poison consider that most of them severe cases are due in the first instance to the introduction of a septic poison though its action may be aided by conditions which we call such as cold; exertion &c.
Above are a series of cases very similar in their course to one another - In the 1st Case we have all the conditions for a simple inflamation. The woman had been a pregnancy for some time - She had taken a severe labour and was lying on a cleanly bed at the time; An inflammation of the cellular tissue occured and was considered at the time as not an unusual thing and was looked upon as a simple inflammation
In the second case again we have circumstances which would lead us to look upon a pelvic inflammation

as nothing extraordinary. The woman had a dead child, a tedious labour and though she made an apparently fair recovery at the time; the first occasion a titanic was applied; the inflammation which I believe had occurred slightly in the early part of the month awoke from its slumbers and blazed out with redoubled energy. The symptoms which occurred about the 2nd or 3rd day and was referred to being caused by a clot in the uterus afterwards when the whole series is seen together seems to be important viz. the after pains which occurred, being in a primipara there would be rather unusual and when occurring in another primipara who had albuminuria it is a point worthy of consideration if they were due not to a simple clot but to some septic material by which the uterus was irritated and which it was endeavouring to expel In Case III there was as far as one could say without examination no inflammation but severe after pains there was a good deal of exhaustion for some days and weakness and lassitude for several weeks The symptoms bore considerable resemblance to albuminuria except that no albumen could be found in the urine and now I have no doubt that she was suffering from a mild species of blood poisoning either or without some slight pelvic inflammation In Case IV we have again severe pain about the third day and in this case the dose of pyrexia seems to be a large one probably from the labour being

longer and more manipulation being employed for the inflammation was severe enough to give rise to symptoms which allowed of no doubt that there was pelvic inflammation which was confirmed by a vaginal examination in this case also after convalescence had commenced the pale listless flabby expression and great debility continued which for a long time no medicine seemed to relieve In Case VI the true nature of the disease seemed seemed to start itself either from an incised dose of the poison or from the accumulating poison of the person got wiped gradually the severe symptoms especially the rapid pulse and on examination we find conclusive evidence of a septic (bad smelling) material in the vagina and suppurations felt in the uterus symptoms not only of cellulitis but also of peritonitis and in spite of the treatment by vaginal injections the disease still pursued its course with great virulence until the uterus was washed out which seemed to remove the prime source of disease. In this case also we have the severe pain at first and the long continued weakness and sallow bloodless look which has not yet left her

Case VII which occured the day after the above and before any serious symptoms had manifested themselves in it soon also showed symptoms of pelvic inflammation with the rough feeling of the uterine wall. The person here was either a

purulent or in such quantity that the woman was prostrated to worse, and left no doubt as to the nature of the disease, and formed the key-note metaphorically speaking to all the other cases; and allowed us to understand the cause of symptoms, which had puzzled us when seen by themselves.
This case throughout its entire course seemed of a very low nature, the effect probably of the hold the poison had on the system before the treatment was commenced, due I believe chiefly to the neglect of using the syringe - The Pneumonia which existed, I consider to have been caused by an embolism and the consequent congestion, as it occurred so suddenly coming on almost within an hour. -
The main points of interest and practical importance which I gather from the consideration of these cases, are 1st the continuance in all the cases of the symptom of pain - what is the cause of this pain is, I think, nearly yet decided though several theories have been advanced - The pain does not seem to be due simply to the inflammation of the cellular tissue, as we often get this with only a very moderate amount of pain, certainly without the severe pain which occurred in nearly all of these cases. By some it has been attributed to the swollen condition of the uterus, but I am inclined to think that a greater part of it is due to the uterine contractions

caused by the continual irritation of the septic
material in the uterus for in case it as soon as
the uterus has been fully washed out, the pain
ceases with the feeling of the temperature
I think that this pain too should be our
indication of some mischief, and should put
us on the alert; certainly if a case with the
pain continuing again returns and with any
symptoms of general uneasiness I think the what
washing out the uterus will do to relieve it.
The most practical point to consider is the amount
of infection in cases which are apparently simple
inflammations - Some of the above cases run a
course exactly similar to simple inflammations,
and yet during how continuous is the series, and
how gradually increasing in strength and fever
they were, they may all be considered as due to
septicity, and if this is the case how important
it is to view such cases in their true light, so
that the infection may not be carried to injure
others but the question arises. How are we
to distinguish the infection cases from the
simple inflamations? The answer to this
question at present must be that it is
impossible, perhaps as we gain more knowledge
of this yet undiscovered world of infectious
germs, we may be able to distinguish them by
the microscope or other means, but at present

we cannot and the only safe rule will be to look suspiciously on all cases of inflammation after labour, and especially if two or three cases follow one another in quick succession, and at once to take brisk measures of treatment as we would if it were a case of more severe Puerperal Fever. Concerning the Cause of these illnesses I think as the process of superfoetation has always and rightly so been considered a normal process and not an abnormal one, a physiological act, and not a pathological, the condition of the cases can hardly be considered a cause; though it is certainly the predisposing condition of them which allowed the illnesses to occur. As females in this condition fortunately in most cases proceed rapidly to a recovery of their health, thus when there is an illness like the above, there must be some added condition which is the actual cause, and in the 1st place I shall endeavour to trace what this added condition is, its source and how it when it is communicated. As to what this added condition is I think there is very little doubt now that this as well as other infectious diseases ~~dis~~ caused by a poison germ; in some cases it may be of a specific nature but in others by a germ which is borrowed as it were from another disease, and which acts in a special way owing to the special conditions which exist

in the person affected - This of course in the present state of our knowledge may be called only a theory, and until cases can be examined by means of the microscope, and by inoculation so that the special factor may be found it must remain a theory. But in noticing the advances that have been made in the last few years in this branch of science e.g. the Researches as regards the Tubercle Bacillus, the Cholera germ, and the discovery by Professor Greenfield concerning the Bacillus of Anthrax we may hope that ere long the actual infection agent or agents may be discovered, and specialized but what I wish to point out here, is that a comparison of these cases I have recorded seems to show that the infection in them is derived from three sources, and some of these sources can be traced to the specific disease itself, but arise from different infectious diseases. In the 1st eight cases the origin seems to be derived from a case of Erysipelas & cases IX and XII from Scarlet Fever while the cases X & XI seem to take their origin from similar causes as Typhoid Fever. With regard to the first series of cases those who contracted the inflammation were considered to have derived it from a case of Erysipelas & which resulted from an abscess in the chest wall with inflammation of the cellular tissue and with series of small

abscesses occuring which I was attending to daily
It may be asked why I refer the cause to this, and
I reply for two reasons I refer the cause to this one,
although after dressing the case I used all precautions
such as washing my hands in antiseptic solutions.
1st Because there was no other cause to be found &
2nd by the great similarity between the progress of the
Uterine affection and that of the case of erysipelas
which I shall endeavour to show later on. In Case
IX and XII the virus seems to be derived from Scarlet
Fever and, with the other cases instead of being conveyed by the accoucheur,
except in Case IX seems to be derived from the
condition of the houses in which they lived. Case
X & XII seem to take their virus from Typhoid
infection though the speedy appearance of the
symptoms were due to the special condition of
the women at the time, which predisposed the system
so that the period of incubation was so rapid
In Case IX the Accoucheur went directly from
a room in which his children were suffering
from Scarlet Fever to the case (this I should say
was accidental as he did not know the nature of the
case until he arrived at the house). The other cases
were not communicated by the Doctor As he
was attending for some time other cases which
went favorably through their confinement
and recovered very speedily as usual —
Thus what I wish to point out here is that

these cases seem to illustrate what has long been supposed to be the truth viz that the disease which has been termed Puerperal Fever as in some cases at least the effect of the introduction of the poisonous material from other infectious diseases, into the absorbing parturient canal but modified in its course by the special condition of the patient.

The next question one has to consider is the time when the infectious material is implanted Is it at the time of delivery? when the accouchement certainly is in closer relation than at any other period of the Puerperium, or is it by the after visits we make to the patient after we have been perhaps to see some infectious disease? This may seem a trivial matter to consider but it really comes to be one of some importance, for on it is based the treatment we may adopt to prevent it. If it were implanted at the time or before the birth of the child one would imagine that the usual copious flow of Liquor Amnii & blood would be sufficient to wash away any foreign particle; and yet I think that this must be the dangerous time for infection. It will be noted that I have given brief notes of two cases which made a speedy recovery, and my reason for doing so is that one of these cases occured and formed a break in what otherwise would have been a continuous series of cases. The

Other occurred shortly after I had discontinued ; attending confinements . They were both precipitate labours, in both the child was born before I arrived In both the placenta was expressed by the hand on the abdomen (Credés method) and in neither did I touch any part of the parturient Canal. Both progressed steadily to good recoveries notwithstanding that I was in daily attendance in each case for one a week after the event and thus I conclude that the infection is carried to the puerperal woman at the time when the child is being born and examinations are made -

Though all observations and the study of the symptoms and progress of certain cases are interesting they would be without any practical effect, if they did not give us and indication how to deal with them, and on what our treatment should be based and in considering this portion of the subject, we have to deal with the treatment of the fever generally caused by a septic poison after labour, and this I divide into the two parts the Preventative and the treatment when the fever is actually present - With regard to the prophylactic treatment, the most absolute way of preventing the infection being caused from any contagious fever is by the accoucheur rigidly abstaining from contact with and isolating the Patient from any fever, erysipelatous sore, or any other source of infection

This however is not a possibility in but a very few cases, as even if the medical man could isolate himself, he could not in all cases send to the homes and have quite free and healthy, but though it is not possible by taking complete isolation as our standard and by endeavouring to attain to it as nearly as possible, we shall in many cases prevent illness which would otherwise have occured - Though this being an impossibility the medical attendant must endeavour to mitigate the risk of carrying the infection as much as he possibly is able. Such precautions as washing ones hands in a disinfectant, and changing ones clothes after attending a few cases, I do not think any one would dispute with and yet I believe there are few medical men who even carry out these simple requirements, but there is one method which if carried out would I feel convinced prevent many of these cases of fever, I mean washing out the uterus and vagina after labour with a weak disinfectant. I have already stated my reasons for considering that the infection is carried at the time of the labour and of this is of the reason for washing out the canal after labour is very evident. In most cases we wait until the disease shows itself by high temperature and quickened pulse, by this time a good dose of the poison has been absorbed, and we have an enfeebled body to deal with, when we commence the treatment that we consider is required - By several authors the treatment recommended is at first to wash out

the Vagina with warm antiseptics, and the more I consider this the more I am doubtful of its usefulness, because in considering the condition of the Vagina and Uterus (of which valuable information was given us a few minutes ago in a beautifully illustrated publication by Dr. Barbour 'The Uterus during the Third Stage and post Partum') it seems very doubtful if the poison could be absorbed by the Vagina at all, except in cases where there was some laceration while the Uterus is just in a condition to absorb it very rapidly, and thus by emptying the Vagina seems to me not to reach at the root of the matter, but only to wash away the surplus quantity of septic material which is not absorbed - It will probably do some good by keeping the Vagina free and shutting off the participating material to the Uterus alone, and by keeping any lacerations clean but I think it is in the Uterus that the main source of infection lies, which normally after labour contains a breaking down blood clot and cellular tissue and to this I think attention should be paid at first, instead of waiting to see the course of events during which period of inactivity an overdose of the poison is taken up - By using a double Canular preferably of Vulcanite and either by the careful use of a syringe or by using an indiarubber tube as a Syphon the Uterus can be washed out safely and comfortably to the patient. In case VI the good effect of this is seen at once the temperature fell almost immediately the Uterus

became very much slower and to that question I believe the woman owed her life, but why should we wait so long before doing this prevention is better than cure, and just as in vaccinating for the prevention of small pox we choose the time when the child is best able to bear the illness; why should we not in every case, use to speak metaphorically a sort of vaccination for puerperal fever, and inflamations; viz by washing out the uterus just after delivery. The uterus is larger then than at any time, and a canula could easily be introduced while later on it is a matter of some difficulty. The risk if care be taken is as slight as in vaccination and the results I believe will prove as good, for any septic material is at once removed before it has time to implant itself in the soil which is only too well suited for it, and it also washes away a good deal of the material which is ready to putrify - It seems to me that after labour the anterior and posterior walls of the vaginal outlet come again into close apposition after so as to preclude the entrance of air, and with it of course any obnoxious particles. We see much the same on a smaller scale in the urethra and bladder when there is an enlarged prostate; we have a putrescible matter in the bladder and a living canal leading to it yet the urine does not become decomposed, not even when a catheter is introduced if it is properly clean but once let a dirty catheter be used and we have

the urine becoming ammoniacal and sets up the other mischief consequent on it: Thus also in the letters we have in the contents which remain after labour a material which will easily become a septic mass we have the living canal with its sides in apposition and we have the finger or fingers of the accoucheur, to introduce some septic material at the time of labour, and considering this I think if we make the washing out of the uterus, and vagina, immediately after labour, a routine practice we shall prevent many though perhaps not all of the septic mischief which so often arises especially in large towns and thickly populated centres especially when any epidemic of infectious disease exists.

Against this plan of procedure I have no doubt many objections will be urged e.g. that it is dangerous from the risk of forcing air into the veins or fluid into the Fallopian tubes or that we cannot carry the apparatus required about with them or that it is disagreeable to the patient as well as several other objections However the method that I advocate is neither difficult nor dangerous and requires no very elaborate apparatus simply 4 or 5 feet of rubber tubing, and a double canula of vulcanite; a few Crystals of Potass: Permanganas: dissolved in a pitcher of warm water the tube slowly emersed from end to end to fill it with fluid; then one end closed

and lifted over the edge of the pitcher and applied to the Canulae and holding it low down the fluid is allowed to run through for a few seconds before introducing it into the uterus, when by raising the pitcher above the patient the antiseptic fluid flows gently in and washes out the uterus and then as it is withdrawn the vaginal canal, removing with it any material that has been introduced or has entered during the labour.

Concerning the treatment after the fever or inflamation has shown itself there can be very little doubt that the first step to be taken is to clean away the material which is causing the mischief and I think no one would hesitate to say that the best way of doing this is by washing out the uterus through and we require here something which would act more effectually than Condy's Fluid such as a one per cent solution of Carbolic Acid or (1-2000) Corrosive Sublimate - In case of no or the result of early treatment by the uterine douche the temperature falling at once &c. and in some of the other cases a temporary benefit was obtained, In cases where there is material left which the uterus would not remove as for instance some shreds of membrane or a small portion of placenta even stronger measures must be taken as the curette used

as in Case XII and a temporary benefit ensued but as I have explained elsewhere owing to another supposed source of the pain which we could not reach it was only a temporary one. The other measures which are necessary more especially in those forms which are derived from erysipelas and in which I believe cellulitis is the great result poultices to the abdomen give great relief to the pain and allay the inflammation. In those cases where tenderness is the chief symptom hot poultices are in the first instance of rather doubtful utility for where the inflammation is just commencing a hot poultice I think will often rather tend to its spread and a much better effect may be gained by application of cold such as ice in an ice bag and laid on the lower part of the abdomen on a towel to prevent frostbite - For the internal administration Quinine gives the best results of any drug and in one or two cases I fancy I have obtained better results by using it in the combined form of Warburgs Tincture - Aconite also gives good results if used at the onset later it is far too depressing - Other drugs in special cases are to be used and one of the most likely to do any good is the Perchloride of Iron in cases in which there is a good deal of low fever combined with local mischief - Spiritus Terebinthinae also acts well as a stimulant

In most cases Morphia has to be added to relieve the pain and to assist in giving what is of essential importance - Rest.

In the treatment in later stages where there is exudation Aspiration has been used but with results that at present are doubtful except in those cases where fluid can be actually felt per the Vagina - Blisters are also used but there is one method of treatment which has as yet seldom been used & advocated but which from my observation of two of the above cases (X and XII) I feel sure in these days of advancing abdominal surgery will eventually come into practice I mean opening the abdomen in suitable case, and if there is any purulent matter washing it out and freely draining the cavity. In both cases X & XII there was a feeling round the uterus which gave one the impression that fluid existed somewhere but not enough to define precisely its position and the constant rigors and recurrent high temperature seemed to indicate that a pocket of pus was continually being absorbed and in such cases as this where there is no source of infection to be found in the uterus we may perhaps be able by the continual study of post cases at last to tell what cases may be benefitted by this extreme procedure -

In concluding the discussion of these cases let me briefly summarise the chief points of interest which they seem to set forth and first Concerning the disease (Puerperal Fever) itself - They seem to indicate that there are at least three sources of the poison besides it may be a specific form of the disease itself which I have not observed that the disease caused by each poison seems to run a course which bearing many points of similarity is yet distinct - The great symptom in the Secundarial poison being the excessive vomiting and peritonitis and the tendency in that derived from Erysipelas to cellulitis and great pain That with regard to the cause there is something added which is not normally present and that this is introduced at the time of labour

With regard to the treatment that the prevention of the disease is to be found in endeavouring to keep the surroundings of the patient as pure as possible and by trying as far as possible not to convey any infection with us but chiefly by washing out the uterus & vagina at the time of labour by a siphon arrangement and also as a precaution to prevent the poisonous materies working its way up between the vaginal walls if this is possible washing out the vagina thrice

daily; by curetting the uterine wall if there is any doubt of portions of the membranes or placenta remaining and in extreme cases if there is any reason for thinking that pus or even sero-purulent fluid exists in the abdomen when our knowledge and methods of examination are more advanced opening the abdomen and if any fluid is found washing it out and freely draining the cavity. - And as regards puerperal Infections that they should be looked upon in all cases as mild cases of puerperal Fever and should be treated as such.