Pregnancy as a complication of Enteric Fever, with notes of two cases exhibiting some peculiar features.

Although justly considered to be a physiological process, the function of child-bearing has, nevertheless, constantly to be reckoned with as an important etiological factor in disease. Indeed pregnancy, parturition and the puerperium play so important a part in those diseases with which it is the province of Gynaecology to deal that though ideally a normal function of the female organism, reproduction must, in many cases, be regarded as the focus et origo of the various pathological processes which are peculiar to the female half of the human race, while in other cases, perhaps equally numerous, though this function may not be a causative agent proper, its effect in modifying morbid processes arising from other causes.
is so great that the diagnosis
and prognosis of almost every ailment,
however trivial, from which a woman
may suffer are influenced by the
history or present condition of the
patient as regards her sexual functions.

Is the affection one of
the alimentary system? Vomiting,
sickness, and vomiting are perhaps
the most constant of all subjective
symptoms of early pregnancy.

If a girl be suffering from
anaemia - the consequent
amenorrhoea, i.e., to the patient and
her friends, a most alarming symptom
than the pallor of her complexion.

Among affections of the circulatory
system we often find varicose
veins appearing for the first time
during the latter months of preg-
nancy; or a callous ulcer of the
leg may owe its resistance to
mreatment to the effects of an
old phlegmasia alba inmpropor
or perhaps been properly treated.
during a puerperium. Respiratory disorders — cough of a very tenacious character is occasionally met with as a reflex during pregnancy, while in aggravated cases of hydranencephaly the imperfect action of the diaphragm occasioned thereby may cause great dyspnoea.

In cutaneous affections the condition of the female sexual organs is a very constant aetiological factor. E.g. acne vulgaris is commonest in girls about the age of puberty; while acne rosacea, a very different affection, is often associated with severe menorrhagia. During pregnancy, again, the urinary functions are often obviously modified, while of nervous affections, we find insanity of almost every type occurring either during pregnancy or during the puerperium. The convulsions of interepal eclampsia, too,
though due to faulty execution rather than being of the nature of a true neurosis, are certainly fraught with much greater immediate danger to the patient than either the early convulsions of ordinary neurasthenia or those of Simple Epilepsy. Hysteria, though not now believed to depend so much upon the organ from which the affection derives its name as upon the condition of the patient's volitional centres, is nevertheless certainly affected by various ovarian conditions, and is much oftener present at the beginning or end of a woman's sexual life than during her reproductive career.

Granting then that pregnancy, parturition and the puerperium are theoretically only phases assumed by the female organism in the execution of a normal function
of the sex, yet the above instances cannot but impress upon the
clinician that those phases of, and constantly do, assume a
great pathological significance, influencing as they do, either as
causes or complications, various diseased conditions of every
system of the female organism.
This being the case, it is not
 surprising to find that some
acute febrile diseases, which
from their very nature, themselves
exert so widespread an influence
on the human economy, are
often observed, when associated
with pregnancy or the puerperal
state, to be so modified as in
many cases to have their
ordinary characteristics
obscured to such an extent
as to render the actual disease
under observation almost, if
not quite unrecognizable.
Therefore, although in
the present state of our knowledge of the influences for good or evil which the condition of the female reproductive organs may reflexly exercise on metabolism. Generally, it is impossible to formulate any laws regarding, or even to reliably classify, the departures from recognized types which the acute fevers may exhibit at these periods, yet the records of the following cases, illustrating some of the modifications of the symptomatology of typhoid fever which may be met with in pregnant or puerperal women, is of interest to the writer, if only as showing the difficulty of accurate diagnosis in some instances.

Until a comparatively recent date it was believed that pregnant women enjoyed an all but complete immunity...
from Enteric fever; and although this view, which was long held by even such observers as Rokitansky and Thiemeyer, is opposed by the experience of Jenner, Griessinger, Murchison, Lusk and other recent authors, yet the opinion of Pepper that "pregnancy may possibly give some degree of immunity from typhoid fever, but does not protect absolutely as was formerly supposed"—probably voices the conclusion arrived at by most recent observers who have investigated the subject.

The consensus of opinion, too, is that when the disease does occur during pregnancy the patient is extremely liable to abort. Murchison recorded 14 cases, in 12 of which pregnancy was interrupted (85.7%). In 322 cases collected by Charpentier, pregnancy
was interrupted in 182 (56.5%).

First, by averaging the statistics of Kaminski, Züger, Scanzoni, concludes that pregnancy is interrupted in 63% of all cases, in which it is a complication of typhoid fever; and Simpson gives the same figure. Playfair recedes 22 cases, 16 of which aborted (72.7%).

Of the 182 cases mentioned by Charpentier, 13 only were in the later months of pregnancy, the remaining 169 being abortions rather than premature labours. Hirst also says that "abortion rather than premature labour is observed"; and Pepper that "abortion is very apt to take place, especially if the disease be contracted in the first half of pregnancy."

But if it be true, as Charpentier and Hirst affirm, that typhoid fever is often
contracted during the earlier than during the later months of pregnancy, this fact doubtless accounts to a great extent for the excess of abortions over premature labours.

As regards the stage of the disease at which the patient is most prone to miscarriage—Simpson finds abortion occurring at the height of the disease, though often later, "even during convalescence". Pepys also inclines to the opinion that "abortion occurs oftener during the later periods of the disease".

As regards the maternal prognosis in these cases—Charpentier considers that "the consequences are more severe the earlier the disease occurs in pregnancy, and that "this has more to do with the prognosis than the type of disease itself".
First it believes the prognosis more favourable in those cases which abort early in the disease than in those which abort late. Lucas says it is "unaffected by existing pregnancy, except in so far as symptoms having reference to the occurrence of uterine affection or premature delivery are concerned". On the other hand, of the 4 deaths occurring in Murchison's 54 cases, 3 aborted at the seventh month, and in the fourth, in which abortion also occurred, the duration of pregnancy was not noted. While of the 10 who recovered 2 carried the child (at the 4th. and 8th. month) throughout the attack; the remaining 8 aborting between the 4th. and 8th. month.

On the whole then the weight of evidence seems
to point to the following conclusions:

1st. Patients, in early pregnancy are more subject to typhoid fever than those who have arrived at the latter months.

2nd. The proportion of cases which abort, to those which are attacked by the disease, is fairly constant at all periods of pregnancy.

3rd. The prognosis in cases which do abort depends more upon the severity of the symptoms occasioned by the abortion (haemorrhage etc.) than upon either the type of disease or the period of pregnancy at which the patient has arrived.

The following cases of typhoid fever occurring in pregnant women are taken from the writer's notes of an epidemic of that disease which attacked the village of Whittlesea near Sunderland, and the
neighbouring colliery of Marsden in the autumn of 1893 and winter of 1893-94. The disease was in most of the cases attacked of a decidedly virulent type, and the mortality a fraction over 20%; though an analysis of this rate would probably show that the rate at the colliery was somewhat higher than that in the village of Whittam itself, owing to the better sanitary condition of the houses, and especially to the pure water supply existing in the latter village at the time of the epidemic. In almost all of the cases that came under the writer’s observation diarrhoea was a marked feature, and in all the cutaneous eruption characteristic of the disease was present.

Case I. Mrs. H. aged 27, the wife of a miner.
I was first called to see this patient at 6 P.M. on Sept. 15th, 1893. She stated that she was seven months pregnant with her second child. She complained of headache, pains in the back and legs, and loss of appetite, the latter symptom having lasted for two days, and the two former for several days previously. She specially complained at this time of pain in the loins, which had been coming on at intervals of an hour or more during the afternoon; on further questioning her she denied explicitly the existence of any further symptoms beyond feeling generally ill. The patient's temperature at this time was 101.5, pulse 98, respiration 30 per minute. On vaginal examination the fundus were found somewhat evoluted, the vagina lost and dry, with the os uteri also dry though soft and very slightly dilated.
The urine, which had been scanty all day, though frequently voided, was
highly coloured, and on examination yielded no trace of albumen.
At 7 P.M. the patient was administered
Liq. Morph. hydrochlor. 3f., and Liq.
Ammon. Acet. 30i. with the object
of allaying the pain and uterine
action, in order to prevent delirium
which appeared to be threatening.
At 12.30 A.M. on Sept. 16th. (5 1/2 hours
later) I was again summoned by
a neighbour who said he thought
the case was to be one of labour.
The os was at this time the size
of a florin and the membranes
were protruding. Dilation
continued easily and naturally,
typical abdominal labour pains
being now frequent and at about
2 A.M. the patient was delivered
of a living immature male child
(apparently between the 7th. and
8th. month of fetal development).
Half an hour later, as no further
pains had supervened, attempts were made to express the placenta, but proving unsuccessful, the thighs and fundus were washed with sublimate lotion, and the placenta detached and removed by the hand introduced into the uterus after having in the same lotion. Very little bleeding followed. A draught of the liquis extract of Ergot was administered, and the patient appeared and felt in all respects better, save that the pulse remained at about 100. As no further haemorrhage, internal or external occurred, however, I left her at about 3.30 P.M. and did not see her again till Thursday later.

At 10.30 A.M. her pulse was 100, temperature 101.5°, and respiration 26. The uterus was contracted, but not of the usual hardness; there was slight stantious lochial discharge, and the tongue was
dry. She had had since delivery, the acting nurse informed me, two
very loose motions, and on enquiry I now elicited the admission that
the patient had suffered from diarrhea for two or three days
previously, but that this was a circumstance she "did not feel
like mentioning" to me at our first interview. A stool which
I saw at this time was not typical
"pea-soup" though it contained
a large quantity of mucus, and
some milk coagula.
At 10 P.M. the pulse was 110 and
the temperature 103. The vagina was
douched with permanganate solution,
and orders given that this should
be repeated twice daily, and the
diet restricted absolutely to milk,
chicken, and Brand's Essence
of Beef.
Sept 14th 10 A.M. Pulse 120, soft.
Temperature 104, tongue fissured
except at tip and edges where it
is dry and red. The lips and teeth are slightly coated with sordes. On palpating the abdomen at this time, the uterus was not found to be abnormally tender but the lower border of the spleen was distinctly palpable during deep inspiration. There was tenderness but no gushings elicited on pressure in the right iliac fossae, while over the whole abdomen, the percussion note was tympanitic. As the diaphoresis was still troublesome the following was prescribed:

R. Bismuthi subnitrate ziii

Mucilag. secentia zvi

Tinct. Catechu ziv

Tinct. Curd. Co. ziii

Aquae ad zvi

sz A tablespoonful after each loose motion. In addition Salol in 10 grain doses, and whiskey in tablespoonful doses were ordered to be administered every four hours.

10 P.M. Pulse 120, markedly dichotomic.
Temperature 104.5, abdomen tympanitic, appearance generally, more typhoid.
Mitral first sound relatively feeble, whisky ordered to be given in the
above dose every 1½ hours, and the following medicine ordered in
addition:
Py Linct Digit. 3
Acet. Auri Sulph. 3
Sp. Ammon. 3
Aqua. at 3
These Sp. A dessert spoonful
in water every 3 hours.
Sept 18th. 9.30 A.M. Temperature
104.1, pulse 120, somewhat harder,
first-mitral sound more pronounced,
lochia almost absent, neither
now nor previously have there been
periodic menses.
2 P.M. Pulse 130, temperature 105.6,
very typhoid appearance, respiration
shallow and rapid, tongue exceedingly
furred and cracked. Dysuria has
been more troublesome during
the day. Ordered whisky 3E every
½ to 1 hour and digitalis mixture every 2 hours.
Sept. 19th. 10 A.M. Pulse 122. Temperature 105. Diarrhea a little better, spleen more palpable in spite of increased tympanites. Salsol now ordered every 2 hours, whiskey and digitalis mixture as before. Cold sipping ordered three daily.

10 P.M. Condition much as in the morning. Temperature 105.3.

Sept. 20th. 10 A.M. Temperature 105.

Patient very exhausted, pulse 120.

10 P.M. Temperature 105, pulse 120.

Condition generally unchanged.

Sept. 21st 10 A.M. Temperature 104.1, pulse 112. Bowels not moved during the last 24 hours.

9-15 P.M. Temperature 105, pulse 120.

One motion during the day.

Sept. 22nd. 10 A.M. Temperature 103.6, pulse 112. The bowels moved once during the night. Patient is now much brighter and can answer questions quite coherently. Digitalis mixture ordered to be given every 3 hours.

10 P.M. Temperature 105.1, pulse 120.
No motion since morning. Bowels discontinued  

**Sept. 23rd.** 10 A.M. Temperature 103.8, pulse 116. Bowels opened about 9:30 A.M.  

10 P.M. Temperature 104.8, pulse 120. No motion during last 12 hours. Bismuth and Calomel mixture discontinued  

**Sept. 24th.** 10 A.M. Temperature 103.5, pulse 108 and stronger. Bowels still unformed. One or two rose spots are observable over the upper part of the abdomen, and have been marked for future identification.  

10 P.M. Temperature 105.7, pulse 112. Bowels confined. No increase in rose spots.  

**Sept. 25th.** 10 A.M. Temperature 103.2, pulse 108. Great increase in number of rose spots. Bowels confined  

10 P.M. Temperature 104.8, pulse 108.  

**Sept. 26th.** 10 A.M. Temperature 103.4, pulse 100.  

10 P.M. Temperature 104.5, pulse 108
From this time onward no more rose spots appeared; the temperature followed the course shown in the accompanying chart and the pulse never rose above 100. The digitalis mixture was stopped on Sept. 29th, and the whisky gradually brought down to 1/2 oz. per day.

Early on the morning of October 1st, a dose of castor oil was administered, the bowels having been confined for seven days. At 10 A.M. on that day the bowels had not yet opened and the patient complained of some abdominal pain, with a temperature of 99.9 and a pulse of 70. The bowels were moved, however, at 2 and 8 P.M. when the pain disappeared and at 10 P.M. the temperature was 98, and the patient felt hungry.

From this time onward a steady convalescence ensued, but the diet was restricted to fluids.
until Oct. 8th, when coulour and anorexia were allowed.
On Oct. 12th the patient partook of boiled fish, being the 27th day since delivery. She now appeared to be quite well, the chief visible effects of her illness being a putrefactive falling out of the hair, great emaciation, anaemia, and general weakness.
Looked at in the light of the latter weeks of the
above history, the diagnosis of this case should present but little
difficulty; but assuming the patient's illness to have begun with the
onset of labour on Sept. 15th, there was until 9 days later nothing that
could absolutely negative a diagnosis
of septicemia, and in point of fact such was the diagnosis
of a physician (a man of long
experience in general practice) who
saw the patient with me on the
morning of Sept. 20th, and it was
not until Sept. 24th, that the
diagnosis of tertian fever was
rendered certain by the appearance
of one or two characteristic spots
on the abdomen. The points on
which prior to that date one bases
the diagnosis of typhoid fever
were as follows: 1st. Though
there was at this time no case of
typhoid fever in Whitchurch.
yet the patient had visited and helped to nurse, a friend who had died of the disease at Marsden Colliery about a fortnight previously. 2nd. She had for two or three days previous to her delivery, and to my first attendance upon her, been suffering from vague pains in the limbs, general lassitude and, though the admission was a hard one, chills and fever. 3rd. The temperature on my first visit, in the very earliest stage of labour, was three degrees above the normal, and therefore the act of parturition could not be the original cause of the elevated temperature, either was it possible that the mere onset of uterine contractions would cause such an elevation of temperature much less the hot and dry feeling of the vagina to the examining finger. 4th. The
delivery was premature, to account for which fact there was written a history of accident, syphilis, previous miscarriages or abnormal labour; therefore the premature labour was much more probably an effect than a cause of the present constitutional disturbance.

5th. Neither pulse nor temperature fell below 100 after delivery, though there was no haemorrhage or faulty uterine contraction.

6th. Febrile symptoms would not be likely to supervene in the case of septicæmia for two or three days at least after delivery.

7th. The absence of exaggerated tenderness of the uterine.

8th. The enlargement of the spleen though these considerations taken collectively seem to point much more in the direction of enteric fever than of septicæmia, yet to one seeing the patient
For the first time, as my colleague did on the fourth day after delivery, there appeared many elements in the case which rendered the diagnosis doubtful.

These points of doubtful significance in the differential diagnosis were: 1st. The artificial removal of the Cerumines, which might possibly have been accomplished under conditions of imperfect asepsis. 2nd. The scanty lochia following parturition. 3rd. The diarrhoea might have originated from any ordinary cause, and its continuance might merely be a symptom of the general septic infection. 4th. The temperature rose progressively from 101.5 on the morning of delivery to 102.5 on the evening of the following day, instead of following the typical remittent curve of enteric fever. 5th. There had been no previous cases of typhoid...
fever in Whitburn itself for many months.

Of these arguments, the first three were disposed of as
arguing equally strongly for
enteric fever; for the antiseptic
precautions were made even
more thorough than one was
in the habit of employing,
owing to the case already having
taken on at the onset of labour
a pathological rather than a
physiological aspect, while
the Beck, Brehia and the diabetics
were certainly 
caeteria parirum
more favourable to a diagnosis
of enteric than of septicaemic
fever.

The temperature
curve throughout was eertain
anormal in, for not only was
its rise of a progressive, non-
remittent character, but its
fall was of the same progressive
character, showing instead of
the usual evening rise of two
degrees or more, during the
period of defervescence, an
elevation of only half a degree or
less, till the normal was
reached on Sept. 20th, probabl
the 18th day of the illness. The
subsequent rise next morning,
following as it did a dose of
castor oil, was alarming, but
after free evacuation, the
temperature again fell, with
absence of pain, to 98°, after
which convalescence was perfect.
Though these anomalies
however, the above temperature
record is not inconsistent with
a diagnosis of typhoid fever,
even when judged in the light
of the following Canon laid
down by Murchison: "Entire
fever would be excluded from the
diagnosis by a temperature
approaching to normal on any
evening during the first week.
and on the other hand by a temperature of 104° on the first day or second morning of illness. As a matter of fact the illness in this case probably began at least two days prior to the onset of labour, and of the course of the temperature during these two days we know nothing, but there is no reason to suppose that that course departed widely from the ordinary one of uterine fever had it not been for the onset of labour or what was probably the third day of the illness.

Assuming then that labour began on the third day we find that the temperature reached its maximum on the 5th day, and that for the next week the record is almost typically that of the temperature on the second
week of a tonic fever. The course of the defervescence, however, was peculiar in that the first sign of the fall was evidenced more in the evening temperatures than in those of the morning. That is to say, that instead of finding as is usually the case, that defervescence first showed itself by great morning emissions, while the evening temperatures stand about the same height, we find the chart of this case showing a progressive fall in the evening temperatures on the 13th, 14th, and 15th days, while not until the 16th day was there a marked fall in the morning temperature as compared with that of the previous morning.

The rapid, almost vertical, fall in temperature which began on the 16th day, and which was complete by the 18th was
certainly, very unlike the lysis of cutaneous fever, yet even this feature of the temperature record is not unparalleled. Indeed the following case, recorded by Murchison, whose diagnosis was confirmed by Jenner, bears a marked similarity to the one under consideration in the rapid rise as well as in the rapid fall of the temperature; the most marked difference being that the high temperature in Murchison's case was sustained for a much shorter period. – "W. D. W., aged 23, sickened with pyrexia on March 13th. The symptoms during the first week were considerable fever with morning remissions, the highest temperature being reached on the evening of the 4th, by (104.5), great prostration, considerable headache and sleeplessness, thirst, loss of appetite, coated tongue with redness..."
of tip and edges... bounds confined. On the 4th day characteristic rose spots appeared, and it continued to come out in successive crops till the 15th day... On the morning of the 16th day the patient, who had perspired freely in the night, felt much better, and the pulse, which had never exceeded 86, fell to 86; and on the 17th day the evening temperature became normal.

In this case of Meckel's, however, the temperature never reached 104 after the 5th day, and he regarded the case as one of "enteric fever aborting on the 16th day." In the case of Mecky, on the other hand, I do not think the disease can be said to have aborted. She was evidently much more seriously ill than the patient whose case has just been quoted, whose pulse was never above 86, and whose temperature for 10 days averaged two degrees lower, while in the
Case under consideration, the severe diarrhoea and the late appearance of rose spots (12th day as compared with 7th day in that case) go to prove that the patient passed through all the usual stages of putrid fever, though the duration of these various stages was shortened and their febrile symptoms so modified by the patient's condition and her reproductive functions as to render the temperature record of her case anomalous in several important particulars.

As regards the objection to the case being one of typhoid fever (an objection which like the others only needs to be considered prior to the appearance of the eruption) on the ground of the disease not existing in Whitburn at the time,—the fact that the patient had acted as nurse to another case, a fortnight previously, obviously nullifies
any weight such an objection might hold.

Besides the symptoms of this case, already considered, the only remaining one presenting any noteworthy feature was the eruption. The rose spots, according to Muelich, usually appear "between the 7th and 12th days inclusive," but in 3 cases out of 4, 6 they did not appear until the 14th day, and in one case they did not appear till the 19th day. In the case of two, they did not appear at all until the 15th day, and only on the 13th day were they at all numerous; and they exhibited this striking peculiarity, that only on those two days did a crop appear.

Their appearance was at a late date, and for a short period, however, was fortunate, for it confirmed, beyond the possibility of doubt, what must otherwise have been a probable diagnosis.

The above case, besides
Presenting the foregoing features of interest in the symptomatology of the disease from which the patient suffered, has an interest also by reason of its bearing upon the question of the infantile prognosis in cases of premature labour occurring as a result of typhoid fever. The foetus, as a rule, in such cases is still born, and, according to Charpentier, "if it is born alive it frequently perishes during the days preceding its birth, either from congenital asthenia, or with symptoms of typhoid fever." That the foetus may contract typhoid fever in utero is a point, however, upon which authorities are not agreed; Raphael, agreeing with Häntel and Ethel, that the bacilli of typhoid fever cannot be transmitted from mother to foetus unless there has been an injury to the placenta.

In this case the child lived for two weeks in an unpurified
incubator, and at certain exhibited any symptoms of the maternal disease; and had it received the careful nursing and attention which a child born so prematurely requires, but which, owing to the circumstances of the family and the preoccupation of the nurse who was in attendance upon the mother, it could not receive, there was no reason why it should not have survived.

Case II. M. S., aged 28, the wife of a joiner, began to feel ill on the 16th. or 17th. of December 1893, complaining of general malaise, headache, loss of appetite, sleeplessness and diarrhoea. I first saw the patient about 9 AM. on December 18th., when she informed me that upon rising in the morning she suffered a severe bleeding from the nose, but that she would not have consulted me had it not been that typhoid fever was then prevalent, and that, owing
to the fact of her being about 3½ months pregnant she deemed it wise to obtain medical advice. Her temperature was at this time 101. and the pulse 86; the tongue was furred, with red tip and edges, and the face presented a slight malar flush on both sides. Palpation of the right iliac fossa elicited gurgling, while the whole abdomen was somewhat distended and tender.

At 9 P.M. the temperature was 102.8 and the pulse 104. There had been four loose stools evacuated during the day.

Dec. 19th: Morning temperature 102, pulse 100. She had had no sleep during the night, three motions having occurred since the previous evening. The patient was at this time ordered: Bismuthis subnitricum 20 gr. and Ext. Haematorrh. 4 gr. after each loose motion. On this day the evening temperature was 102.
and pulse 112, two stools having been passed since morning.

The case now appeared to be obviously one of typhoid fever, but, with the exception of the diarhoea, all the symptoms pointed to it as not being likely to prove specially severe. The case followed an ordinary course till the night of Dec. 25th. with an almost typical temperature (see chart p.42), the diarrhoea gradually subsiding and rose spots appearing on Dec. 24th.—the 9th. day of the disease. On the evening of Dec. 25th., however, pronounced uterine contractions began, and some haemorrhage resulted. The vagina was plugged with glycerine pledgets at 10 P.M. but, as the uterine pains became very severe, these were removed at 1 A.M. on Dec. 26th. and the womb extracted by the finger through the now dilated os uteri. Profuse haemorrhage followed, which
persisted in spite of repeated hot water injections, and the hypodermic administration of Ergotine; and as a last resource a narrow strip of carbolized gauze was introduced into the uterus, so as to fill its cavity as completely as possible, after which the vagina was packed with a large pledget of the same material. These measures had the effect of arresting the haemorrhage, though not before the patient's symptoms had assumed a most alarming character.

The pulse, which at the onset of uterine action had been about 100, and of fair, good volume and force, now rose in frequency to over 130, while its thready character clearly evidenced the effect of the profuse loss of blood which had occurred. The patient's face, hitherto at almost all times presenting a malar flush, was
now alarmingly pale, and her body
battled in alarming perspiration. The
temperature was not taken at this
time but it had evidently fallen
considerably from the point at which
it stood the previous evening.

Sulphuric Ether in 15-minim doses
and Strychnine in 1/25-grain doses
were administered alternately every
1/2 hours till 8 A.M. when digitalis
and brandy were given by the mouth.

At 8:30 A.M. the temperature was
102.5°, the pulse 116 and of better
quality.

At 12, noon, on Dec. 26th.
the temperature was 101°, and the pulse
which was about 100 showed
both by its diminished rate and
increased volume the effect
of the digitalis and brandy which
had been administered in
15-minim and half-ounce doses
respectively every two hours since
8 A.M. An examination of the
abdomen at this visit showed
the presence of several fresh rose spots, and I expected that by night the temperature would again have risen; but at 10 P.M. it only stood at 99.5, and the patient felt better than she had done at any time during the past week. The gauge was at this time removed both from vagina and uterine and the former douched with sublimate lotion 1:4000.

On the morning of Dec. 27th, the temperature was 97.4, and though some fresh rose spots were again showing on the abdomen and chest, the evening rise of temperature on this day only amounted to two degrees. A dose of castor oil was administered on Dec. 28th, and from this date onward the temperature never rose above 100, and had practically resumed its normal course by Dec. 30th (the 15th day of the illness) though
One or two rose spots continued to appear daily until January 15th. The patient was kept on a diet of milk, beef tea, and Bovril till January when farinaceous puddings were allowed; these were followed in a day or two by boiled fish, and almost immediately thereafter by chicken meat, for which the patient had been craving for nearly 3 weeks.
In the above case, the temperature record bears a
remarkable resemblance to one of typhoid fever, but the entire
absence of this disease from the locality, and the moderately
comfortable circumstances of the
patient, in themselves almost
negative such a diagnosis;
while the prevalence of typhoid,
considered in conjunction with
all the classical symptoms of
that fever present in the case
even by the 9th day, points conclusively
to the latter as the disease
from which the patient suffered.
Regarding the case,
then, as we are bound to do, as
one of enteric fever in a woman
in the fourth month of pregnancy,
is it possible to reconcile the
critical fall of temperature, which
occurred on the 12th day, with
the life history of that disease?
That cases of enteric
fever occasionally run a much shorter course than the classical 21 days is a fact recognized by most authors, and [Murchison], in addition to the case already quoted as abortive on the 16th day, records another where this took place on the 16th day, but in neither of these two cases was the temperature long sustained at a higher level than 103°-103.5°. In fact in the case of 10 days duration the highest recorded temperature was 102.7° (on the evening of the 8th day) while in the case in which the disease was cut short on the 16th day, the temperature only once reached 104.5°, the range during the 13th, 14th, and 15th days from 98.8° to 103.5° falling on the 16th day to 97.2°. The temperature in the case of Mrs. S. therefore, was, up to the 16th day, much more typical of typhoid fever than that of either of the above
cases, the deviation from the usual type beginning at the time of the miscarriage, during the thirty hours following which it fell continuously to a degree or more below the normal.

It is therefore probable that in this case, which could not, up till the 10th day, be regarded as either exceptionally mild or exceptionally severe, if gestation had not been interrupted the course of the fever would not have been thus cut short.

But though miscarriage is the rule in women who contract typhoid fever during pregnancy it is not usually such a benign factor as in this case it appeared to be, the accompanying chemicosis generally so deflexing the patient that she thereafter offers but a feeble resistance to the fever. As every physician knows frequent intestinal hemorrhage during
the height of enteric fever is generally followed by a rapid fall in the temperature, and though in those cases which survive the hemorrhage, this fall is generally followed by a rise in the course of the ensuing 24 hours, yet it must not be forgotten that even solate as the first quarter of the present century phlebotomy was regarded as the great sheet anchor in the treatment of the pyrexia of typhoid and typhus fevers, which diseases were then only beginning to be differentiated. And, though in the light of our latter day pathology and the more rational therapeutic indications arising therefrom, such a proceeding in the course of typhoid fever would be regarded as almost amounting to malpractice, yet the fact remains that leading hospital physicians both in London and Edinburgh habitually treated
Such cases by bloodletting at a period even within the memory of some physicians still in practice, and it is difficult to believe that such a practice would be persisted in so long, by such able observers, had it not been followed, at least occasionally, by actual permanent relief of the symptoms it was intended to combat.

In the case of Mr. S., at any rate, a copious loss of blood was followed by permanent relief of every symptom, and that at the very height of the disease, at the stage, in fact, when the process of medullary infiltration of the agminated glands is believed to merge into the process of necrosis, and, though the actual loss of blood in itself may account for the initial fall in temperature, yet why was this fall not followed by the usual rise?

Whether the answer be...
that the haemorrhage itselflessness
the congestion of the inflamed
patches by a more or less complete
emptying of the arteries leading to
those areas, in common with
the rest of the arterial system,
just at the right time to prevent
the necrotic process; whether
these vessels were reflexly
contracted, and sloughing prevented
in the same manner as suppuration
of the middle ear may be avoided
by the application of leeches to the
mastoid process; or whether the
very fact of pregnancy being
interrupted occasioned the result
above recorded by some unknown
reflex effect on the heat Centre.
it is impossible to say. But
whatever may be the explanation
it must be one which will
account for the relief of all the
symptoms arising from the
general toxæmia which is
now believed to be as much as
integral part of typhoid fever as the intestinal lesions themselves.

It is difficult to see how any of the above hypotheses can meet all the requirements; but the view that the great amelioration of all the symptoms was due either directly or indirectly through the consequent haemorrhage to the emptying of the uterus is at least tenable, and though nothing can be gathered from this case in the way of new indications for the treatment of similar cases, yet its record shows that even serious uterine haemorrhages, following abortion, during the course of enteric fever need not always render the prognosis hopeless, and that it is even possible that such a haemorrhage may be immediately followed by abortion of the disease and convalescence.

"From a diagnostic"
From a point of view, also, this case is of interest, for such a case, did it lack the characteristic eruption, might naturally lead one, after observing such a critical fall of temperature on the 11th. day, to conclude that the case with which he had to deal was one of typhus rather than of typhoid fever.

Both the cases here considered, bearing as they do upon a complication of enteric fever concerning which there is a surprising dearth of recorded observations, tend to show that although there is no disease which exhibits a more protean character than enteric fever, the symptoms and course of that disease may, when complicated by pregnancy, become even more than usually anomalous, and that a diagnosis, if sustained at prior to the interruption of
pregnancy, must after that event often depend entirely upon the appearance or non-appearance of rose spots (a by no means constant symptom). At the same time, as abortion in such cases seldom occurs before the third day of the illness, it should usually be possible by a careful analysis of the symptoms, and by enquiring into the recent history of the patient and her surroundings, to become by that time so assured of the nature of the disease with which we have to deal that no subsequent anomalies in the symptoms can affect our diagnosis.

References:


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I hereby certify that the foregoing thesis has been composed and written solely by me; and that I have been engaged in general practice as a physician and surgeon for upwards of two years since graduation.

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