On

Puerperal Fever.

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I propose to write of one of the most important diseases of the puerperal state, ranking in importance second only to labour, for its importance as a disease, diminished by the circumstances under which it occurs — at a period when the alleged anxiety of the patient's relatives, i.e., by the sudden determination of a hitherto favourable convalescence of the substitution of a dangerous complaint, excited with redoubled force — these all came to be attached to puerperal fever, an interest equalled by few other diseases with which the medical practitioner has to deal.

Before passing on to the more immediate consideration of the disease itself, it may not be unprofitable, to certainly not uninterestingly
to glance at the history of the disease, its epidemics, and the varied nomenclature employed to designate it at different times by different authorities. — In Hipponocrates we find allusion made evidently to puerperal fever, that he of Avicenna attributed it to obstruction of the coehia. — Plater in 1602, Senest in 1656, Sylvenus in 1674, all allude to it, each assigning it a different cause. Thus we find that the disease was known to those older authorities, but neither do we find evidence that they witnessed an epidemic of puerperal fever. The first record of such an occurrence is of one in Paris in the year 1746, attacking the poorer class of the people, succeeding so efficiently to its effect, particularly to those confined in the Hospital of the Hôtel-Dieu.
Again in 1750 there was another epidemic in Paris & also in Lyons. In our own country the first record of a like kind is of the year 1760 & 1761. In Dublin it appeared in 1767, again in 1774, & 1787 following year. In the year 1773 the patients in the Royal Infirmary Edinburgh were attacked with a very fatal severe epidemic, so much so that in the month of Feb, "almost every woman as soon as she was delivered, or perhaps 24 hours afterwards was seized with it; half of them died although every method was used to cure the disorder" — we learn from the same authority (Dr. Young) that "the disease did not exist in the town". Some years after this, owing to the frequent epidemics in France a report was made to the government by the Med. Society of Paris, on the subject of its treatment. A few years after its occurrence in Edinburgh, the county of
Derbyshire was visited by an attack, in 1785.

London Lying-in Hospital was also attacked by
the epidemic. In 1787 London, in 1789
Aberdeen were not exempt from the scourge of
its virulence. Later it after many intervening
epidemic attacks, doubtless many cases
occurring in private practice, puerperal fever
was epidemic in the Lying-in Hospital in London
in the years 1835-36 and 38 in the Westminster
Hospital in 1842. — This historical
account is interesting as it shows us evidently
the particular relation existing between
epidemics of the fever, the collection of
cases (children) together, as in Hospitals
stated to that purpose, for although no
find cases, evidently if puerperal fever
defended to be recorded, by the older writers;
yet no observe epidemics to have first
occurred in hospitals.

The disease under consideration has been
known by various names, such as,
Puerperal fever, or puerperal peritonitis. Thus have termed it an obstruction or suppression of the lochia, by means it has been called an infl. of the uterus. Puerperal fever seems however to be the most appropriate term, both from the period at which it occurs and the nature of the complaint itself.

Authors have described many different forms of puerperal fever, some as Gooch, make five forms. Douglas & Storer three, others again four, some five, some others even makes six different forms of the disease. All however agree that there are two forms, one an inflammatory form & an epidemic or typhoid form, to these are added a third or gastro-bilious & a fourth the atonic or irregular or complicated form. I think this classification may be some what simplified by reducing the number of forms to three, which I shall designate
as 1st. The peritononal, or inflammatory.
2nd. The gastro-enteric.
3rd. The complicated or Typhoid form.

These will include all the varieties of the disease.

Upon its greater simplicity of arrangement, such a deduction cannot be otherwise than preferable.

The signs of symptoms of each of these three forms I now proceed to consider.

1st. Of the Peritononal or Inflammatory form.

This is characterized by the well marked sign that it almost invariably occurs during the period of the first three days after parturition, the patient may have to all appearances been progressing in the most favourable manner, when she is seized by a rigor, varying as to its severity, this rigor is followed by the usual succeeding phenomena occurring in intermittent fever, viz the heat of the
body is gradually increased, rising much above the natural standard, the skin before shrivelled up, becomes now adherent to it, not only hard to the feel, the mouth is parched dry, the profuse perpiration breaks out through the skin. - To these succeed pain and tenderness of the abdomen, increasing in severity, extending from the point at which it commenced, both upwards, downwards, horizontally, so as to cover the whole abdominal region, the slightest movement greatly augments this pain, - the patient lies on her back, with the knees drawn up to the abdomen, unable to bear the slightest pressure. The pulse is increased in force and rapidity, numbering 120 or even more, in all cases it is small, wiry. Respiration becomes shallow and frequent, because attempts at deep inspiration, increase the pain by
scurrying upon the abdominal cavity to so cause a pressure, "I almost shudder," says Dr. Halme alluding to this state. "When I consider the excruciating torments that must reach the distressed patient under these distressing circumstances" — the tongue at first moist and white, or perhaps covered with a creamy kind of film, afterwards becomes parched, dry through or it may even be clean. — The countenance of the patient is flushed, she complains of headache, referring it especially to the frontal region. Two other matters of vast importance arise, which must not fail to attract our attention. I allude to the suppression of the bowel flow, to the cessation of the secretion of mucus. — After a time, varying from a few hours to some days, it suppressing the disease must to have been
alleviated or contained, a new stage com-
menaces, which although at first sight
might appear favourable, is yet fraught
t With much danger, the pain in the
abdomen subsides the symptoms generally
appear alleviated, - this marking the
period of effusion is a dangerous crisis,
probably the patient passes into a
state of collapse, the skin is hot &
dry, the pulse quick, feeble & thread-like,
the respiration laboured, the countenance
sunken & the abdomen becomes tympanick,
the extremities as the disease advances
become cold, dissolution rapidly
follow. - But on the other hand, few
more favourable circumstances, when
the disease has succumbed to our
treatment tamelication commenced,
the abdominal pain, in this case also
decreases, - but here we find the pulse
also decreases, the tongue becomes moist at the edges, the lacteal fluid in the capillaries return, the patient generally improves, and complains principally, merely of debility and twitches of pain. The symptoms detailed above it is not to be supposed are always present with the regularity they detailed, they may be no rigor at the onset of the attack, there may be an absence of pain or it may simulate very nearly the ordinary after pains, but the concomitant symptoms will indicate to the careful observer the real state of the case.

Even of the Gastro-intestine, so as it may also be called the gastro-bilious form, in which we find the parts connected with the biliary process more particularly affected. This perhaps is not so severe a form as that described above: we do not find here, at all events but at the onset of the attack, that great
abdominal tenderness, the abdomen is painless, but it is tympanitic. The patient loses her appetite, complains of
transmural, suffers from general lowered
vitality, the tongue is white, furred,
and partially at its edges, through
the white fur are seen projecting the
red summits of some of the papillae.
She has at intervals chill. Later, it
after a time the abdomen becomes tender
painful, the skin hot dry. The patient
is tremulous, passes into a state of
delirium, the heart becomes exceedingly
fretted, vomiting supervenes, occurring
apparently without effort. The matter
vomited is dark coloured, diarrhoea
set in. The evacuations are dark and
slimy. This occurrence of diarrhoea
may be the crisis of the complaint.
Either terminating the disease, or it
may pass into the typhoid form, and on
which probably the strength gives way
the patient sinks. — It seems that this
form of pernicious fever is very liable
to occur after protracted, exhausting or
hemorrhagic labour.

The third form, the typhoid or complicated
is the most severe of the three forms of
of the disease, from its rapid progress
to a fatal termination, it is being com-
monly found in lying-in hospitals is
most fearful in its ravages, Dr. Farn
says; "if you save in a hospital one
out of three patients, afflicted with this
malady, you may consider your practice
as successful." — It begins with
the usual rigor between the 1st & 3d
day, or its appearance may be delayed
as late even as the end of the second
month after delivery, the earlier howev
The period at which the rigor occurs so
the more severe in all probability will
be the attack, the rigor is followed by
frontal headache, fever abdominal
pain. The fever is of the typhoid kind,
accompanied with great depression, it
Commences with a pulse of 120 to 130, the
Skin has that peculiar tinge like seen
in ordinary typhus, the cheeks are
flushed, the eyes dull surrounded by a
dark merte, the pupil is dilated. A
mark of its complicated character
is the subsidence of the abdominal
pain, the occurrence of vomiting and
Diarrhoea. The thoracic viscera are
sometimes inclined in the com-
plification, the patient complains of
compression of the lungs it takes
deep inspiration to relieve it, this
an attack of pneumonia is sometimes so
dence that the lung passes into a state of sanguine, more frequently however it is of the lungs that is affected, being effused with serous, pus, or blood, sometimes this effusion takes place in vast quantities, may extend while further; for sanguine, serum is frequently found effused in the chest, or amongst the films of the muscles, the joints may become filled with pus, from the glads of the eye becomes effused, suppurates, and destroyed; sanguine of the pulvin, occasionally even of the lower extremities happens.

Now as to the pathological appearances, when we come to examine them after death, very greatly, too, not accord with what we should from the previous symptoms expect to find, for when the symptoms have
been such as to lead us both for great changes, in fine but little alteration, for the other hand frequently where the symptoms have been slight we find great changes after death. No one organ can be named which may not be affected, although some are more frequently affected than others, for instance the uterus itself, is very often but not always the seat of change. For in 220 recorded cases of post-mortem examination it was in 190 of them more or less affected, but in 22 it alone was found abnormal. The appearances of the uterus found are as follows, — Its bulke is undiminished since the expulsion of the placenta, the vessels on its surface are much distended & injected with blood, its substance is found to be very soft breaking down under the touch, — on cutting into
its substance collection of pus or abscesses are found more or less numerous varying in size; its inner surface has sometimes shreds of the placenta adhering to it, clots of blood or if fibrous or found blocking it the entrance. On its inner surface is a thin greenish gelatinous layer highly offensive, this is best noticed on that portion of the uterus to which the placenta was attached. The orifice best of the vagina is usually one of a peculiar brown hue. The ovaries have flakes of lymph adhering to their external surface together with some in their interior. The round and broad ligaments also have flakes of lymph adhering to them — but in 230 cases the peritonitis was found affected in 165, it in 28 it alone was found affected, this affection consists chiefly in the effusion
into its cavities of fluid, often clear and transparent, but more commonly turbid, mixed with pus, lymph or blood, or pus alone may be present true serous, if the patient has survived the attack for some days. The peritoneum has been found thickened. In some cases it has been observed gangrenous, too. - The intestines are often distended with a very foetid gas, sometimes mixed with a dark fluid. - The stomach is not often found to be much altered but it has been seen elevated from perforation. The peritoneal coat of the liver is often in the same state as the peritoneum. Generally the liver itself, as also the spleen, is found softened and congested, the latter particularly. The kidneys sometimes contain in their vessels pus or lymph than diminish their calibre.
to obstructing the flow of blood. The lymphatics are generally very much disturbed. The thoracic viscera are not so often found involved, but the heart has been observed flabby, viscous fluid to have been contained in the pericardium. The lungs also are sometimes congested, to contain cavities of purulent matter. The brain, even in cases attended with delirium seems to be little liable to become affected. It cannot be doubted that during the pregnant state, there is an increased state of irritability of the uterus, that this is increased during labour in all its less evident, further this irritability is not confined to the uterus but extends to the whole system, this protractual irritability renders the patient more susceptible to impressions, particularly to those of a mental nature,
The functions of the various viscera likewise modified during pregnancy, now that the modifying cause is removed & the shock of the parturient process, from which the vital energy of the system is just recovering, produce a great predisposition to be affected by influences either sanative or malific. - The amount of this predisposition will vary according to the severity of the shock upon the vital energy, the nervous susceptibility of the patient. - What then are causes likely to excite this predisposition? Mental emotion, hemorrhage, certain conditions of the atmosphere, by still further depressing the vital energy, may be stated as very probable causes. - Again, neglected condition of the alimentary canal, intake of food, contaminated states of the air either from soiled bed linen, or want of ventilation, by
the retention in the uternus of the copious discharge, its decomposi'tion & absorption, contaminating the blood, or by a like absorption of mucus matted, becoming in the intestinal canal. —

It is perhaps scarcely necessary to submit upon the question as to the contagious nature of purpural fever, of the typhoid form particularly; instances of it are undoubtedly contagious, nature have too frequently occurred, that much vigilance can scarcely be used to prevent their re-occurrence. — It has been proved, to have been communicated from one patient to the other, by the hands or clothes of the attendant, by means of the bed clothes, by the conta'minated air of the apartment, even by the medical attendant himself as coincided in several deplorable instances on record. —
The treatment to be adopted, must vary according to which of the three forms of the disease we have to deal with. In the Peritoneal or inflammatory form our object is to subdue the inflammation, to remove any local irritation that may be present, to effect the first by prompt treatment, regulated as to activity by the strength and condition of the patient; it will be advisable to abstract blood either by Venesection or by leeches, if the latter method be chosen as the more suitable plan. Leeches are to be applied scattered over the abdomen, particularly where the pain is greatest, when they are removed but formation are to be applied. - The bowels are to be
fully formed, by a full dose of Calomel, followed either by Castor oil, or by an
Enema. - or then proceed next to administer Mercury, which from ex-
perience is found to exercise diverse influence upon the serous membranes,
until its specific effects begin to become apparent, this combined with pain,
which independently of its effect in allay-
ing pain, seems also to have a beneficial
effect upon the disease itself. - The
best method is to administer them in
small repeated doses, remembering the
tolerance taken is as little as possible,
in this disease), until either an
impression is made upon the disease
or the mouth begins to be affected, or
after a decided effect has taken
place the dose must be diminished.
The intervals lengthened. If the skin is hot, the febrile symptoms generally are high, the acetate of ammonia with antimony or some diaphoretic saline, is given with benefit. When from the state of the pulse the active anti-phlogistic treatment is contra-indicated, turpentine ointments (which are I think equal to blister), should be applied over the abdomen. Afterwards moist warm water, either in the shape of hot fomentations, or "bien boulettes". The internal use of turpentine has been recommended in doses of 10 to 20 grains frequently. The patient must be sustained at the same time by treatment of a non-stimulating kind. The febrile-saluie form requires some modification of this treatment, but it is best not to use such rigid anti-phlogistic treatment, if an alcho-
blood at all, it must be in smaller quantity by means of leeches. - At the commencement of the attack, especially if there be much irritability of the stomach, pro-
during vomiting, great relief will be experienced from 1 oz to 4 oz of Ptl: Jpecae, followed by an afterment dose of Colonel of Castor oil. - But if the disease has advanced somewhat further, we have to treat the troublesome complications of diarrhoea, here the greatest benefit is to be derived from the exhibition of Opium, either in the solid uncombined form, or as Ptl: Taponiae comp., or as Ptl: Tonnii in six doses every four or six hours, it when the urging of the diarrhoea has somewhat abated, it is wise to confine it to the Opium. Some Hypocras of Crete. I have seen much good done in one case from the use of
Thus: Catechu with Brandy, every two hours at first, reducing the frequency of its administration as the case improves; at the same time injecting into the rectum about 3/4 of stand or 1/2 to 1/4 of the leg, you sedatives. The diet of the patient should be light, consisting of vegetables, tapioca, and the like. In some cases it may be necessary to administer wine or Brandy, but in general these are not requisites, indeed they are in many cases contra-indicated. In the Typhoid or complicated form, it may be laid down as a rule that blood is not to be abstracted, if however in any solitary case it should be deemed requisite, it must be done with the greatest caution, by means of leeches only.
written until the patient bear the case of Colonel so fully or so well, in this, as in the two forms of the disease already described, it is better to give the Hydrogen. Exsence combining it with tonic powders. Restrictive applications are of great service, externally in the form of Oplage, & internally as a stimulant mixture, but formulas are also exceedingly beneficial. The case is indeed to be treated in a great measure as one of Typhus, by stimulants, restoratives, sometimes tonics, generally combining them with Opium. There is too, in these cases, frequently a fatal discharge from the vagina, this is effectually mitigated relieved by injections of warm water, containing in solution perhaps some one of the chlorides, the injection repeated two or three times daily.
In fact our treatment must be so varied, according to the nature of the case, of the epidemic, if one prevails, that to lay down any one plan of treatment, suitable to all cases would be impossible, seeing that puerperal fever presents forms "The most obstetric, the most asthenic, with every intermediate grade," The skilful discrimination of the practitioner will be called upon to decide the treatment proper for the case before him, the success of which will depend upon his early recognition of the particular type of the case, preserving combating it from its very earliest commencement.

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