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NOTES AND ILLUSTRATIONS OF THE DIS- QUISITION ON PUERPERAL FEVER.

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"Ainsi le meilleur medecin n'est pas celui qui en aveugle et en courant accumule beaucoup de pratique; mais celui qui ne fait que des observations biens approfondies, et qui joint a ces observations le nombre le beaucoup plus grand des observations faites par des hommes animés du meme esprit que lui; ces observations sont le *veritable experience* du medecin."—*D'Alembert.*

What sort of case is to be regarded as puerperal fever?

If it is a specific disease, it should have some definitive character. Is there any particular symptom that is *pathognomonic*, or is the disease to be known from the combination and definite proportion of the symptoms; or from its successive states and terminations?

It is obvious, on the most cursory view of the cases reported by various writers under this designation, that very different morbid affections have been confounded under this term; and hence the most contradictory statements have been set forth on the nature and treatment of puerperal fever.

The late illustrious professor of midwifery at Edinburgh, Dr. James Hamilton, whose lectures were unrivalled for the comprehensive description of diseases, and the rich stores of practical matter which they contained, although they were deficient in exact pathological reasoning, maintained that, a case marked by a "sudden attack of pyrexia, exquisite pain, distension, and heat of the abdomen, a pulse at 140, disordered breathing, sickness, diarrhoea, thirst, and delirium," is not (necessarily) an example of puerperal fever. He asserted that such a case has been erroneously called so by certain popular writers on the subject; that it is symptomatic fever from a suppression of the lochia, consequent on passions of the mind, irregularities in diet, and exposure to cold; that, when the patient has been thought to be in a dying state, the disease has ceased on the lochial discharge being restored; that uterine congestion and absorption of the uterine fluids, are the proximate causes of this "*spurious puerperal fever*;" that when this affection is neglected, it will end in inflammation of the uterus, which you recognize by feeling this organ large, hardened, and exquisitely tender.

This disease is distinguished, Dr. Hamilton said, from true puerperal fever, by the suppression of the lochia, being the first and an invariable symptom, which is followed by the febrile state; its progress is unlike that of puerperal fever; there is no early un-

easiness in breathing; and the stools are unlike those in the fever; that therefore, the treatment successfully pursued in such a case cannot be applied to one of the fever.

Another distinguished professor also describes an affection "coming on a few days after delivery, from exertion and exposure to cold, and characterized by sudden violent pain in the lower belly, with sickness, little rigor, a rapid pulse, a hot skin, and an interrupted lochia; the uterus tender on pressure." This disorder he considers distinct from puerperal fever, and also from the disease alluded to by Dr. Hamilton; and that it is distinguished from inflammation by the sudden attacks of pain, its rapid increase and intermittent character; and also by the absence of shivering,—inflammation being, he thinks, marked by constant pain, and continual fever. This disorder he designates *hysteralgia*.

There is, unquestionably, in the puerperal state, pain in the uterus or intestines, and tenderness of the abdominal muscles, without inflammation; and the diagnosis of uterine peritonitis from after-pains, may be in some cases difficult, particularly when remittent and sub-acute inflammation had occurred during pregnancy; but every judicious practitioner would cautiously treat such a case as inflammatory, if the lochia are suppressed, and the pulse quick, and the pain constant or *recurrent*.

Another celebrated physician distinguishes from puerperal fever, and even from abdominal congestion or inflammation, a case marked by shiverings, heat of skin, acute pain and tenderness of the abdomen, disordered bowels and unhealthy stools, headache, disturbed respiration, and palpitation of the heart. A case, indeed, pretty exactly resembling the eighth case in my former paper. Such a case is regarded by the gentleman alluded to, as one of "*intestinal irritation*." Now, it is demonstrated, that symptoms very similar to those mentioned are seen in some cases of puerperal fever, when the mucous coat of the intestines has been the seat of the inflammation. If the abdomen is soft and bears pressure well, if the lochia and milk are natural, and if disorder of the bowels had existed before parturition, one might view the case as an incidental and transitory congestion, with vascular and nervous irritation in the intestines, which would easily yield to soothing treatment, alteratives, and aperients. Every cautious practitioner would, however, take care not to be deluded in such a case into the use of means that would be injurious if inflammation were subsisting; as in case VI., already narrated.

There is another puerperal affection characterized by

shivering, a rapid pulse, a hot skin, pains in the bowels remittent pain, and distension, of the abdomen, sickness, and a white mucous tongue, the lochia and milk little disturbed. This is designated "*intestinal fever*," from which puerperal is said to be distinguished by the milk or lochia being always disturbed, and by the constant abdominal pain and distension. My second case, shows the fallacy of these diagnostics.

Dr. Hamilton described, under the term *irritative fever*, which he attributed to the absorption of putrid placenta, a disease very like that seen in my *ninth* case. The symptoms are, vomiting, headache, a fetid discharge from the womb, restlessness, heat, sweating, and all the symptoms of hectic and delirium; generally fatal within a week. Dr. Hamilton saw only one case recover! Dr. J. Clarke traced the matter into the *uterine veins* in such a case; and Dr. Hamilton thought it might be found in the absorbents also. Cases of this description have appeared in the *Medical Journals*, under the name of malignant puerperal fever.

There is also a transient *nervous fever*, incident to lying-in women, cases of which appear to have been called puerperal and *hydrotic fever*. There is, says Dr. Hamilton, rigor suddenly occurring, like that of an intermittent headache; thirst, nausea, pain of back, heat, frequency of pulse, and laborious breathing; the delirium and oppression of the vital powers are sometimes alarming. It ends in perspiration; seldom lasts twenty-four hours; and is distinguished by the suddenness of the attack, and the excessive and sudden frequency of the pulse.

Another disorder resembles the typhoid form of puerperal fever: "It is ushered in by rigor, great heat, languor, oppression at the præcordia, depression of spirits, dulness of eyes, perspiration of sour matter; sometimes it is combined with inflammation or congestion in the abdominal viscera, in which case there is coffee-coloured vomiting. The perspiration and state of the pulse distinguish it." It is a *miliary fever*.

Another puerperal disease has been confounded with puerperal fever; it is characterised by "an erysipelatous efflorescence on the arms, turbid urine, the belly swollen and elastic, like a down pillow, but not painful; the lochia continuing. Dr. Hamilton never saw one recover from this state. Sometimes it appears to end critically by a purging, but a relapse follows, and death. This is puerperal typhus. Some writers maintain that the primary symptoms of puerperal fever are the same with it; that both diseases have occurred in the same place, as epidemics; that the exciting causes are the same; and that the diseases are convertible, for a person exposed to the infection of puerperal fever had typhus, and one exposed to typhus had puerperal fever. Now, there is impaired energy of the nervous system, and irregular action of the vascular system in both; but the primary symptoms of these diseases are not the same. Pain in the abdomen is a primary symptom in puerperal fever, not in the typhus. That these affections have occurred at the same time and place is no proof of their identity. Diseases of an opposite nature, which arise from different causes, may prevail together as epidemics. Dr. Young denies the convertibility of these affections, and refutes the case on which the assertion was founded. Dr. Hamilton saw cases of typhus in puerperal women fatal without the

symptoms of puerperal fever. The succession of the symptoms will distinguish them."

I believe, with Dr. Hamilton, that synochus or typhus, with peritoneal inflammation, in child-bed, is a distinct disease from puerperal fever; the history of the case, the *physiognomy* of the patient, and the character of the nervous symptoms, are dissimilar; and the diagnosis is of much practical importance.

What, then, is puerperal fever? Is every puerperal case of shivering, with pain in the abdomen, a quick pulse, and disturbed breathing, with rapid effusion into the peritonæum, and sinking of the vital powers, to be so regarded; particularly when many such cases occur together, or in quick succession, and are fatal in a large proportion. The term *fever* seems to have been applied to such cases, from their occasional prevalence and high mortality, and from the dissimilarity of their progress to that of other cases of pure abdominal inflammation, and the likeness of some of their features to those of continued fever. The epithet puerperal fever should indicate a disease proper to child-bed, and related to some peculiar condition of that state.

The history of the disease given by such celebrated teachers as the late Dr. James Hamilton, Dr. G. Fordyce, of London, and Dr. Osborne, who taught midwifery at John Hunter's school, in Windmill Street, in 1789, may be interesting to many practitioners. I will, therefore, quote some notes of the lectures of the first named gentleman, taken by myself in 1820, and those of the other lecturers, taken by a deceased relative in 1790.

Dr. G. Fordyce says, "The womb is subject to *phlegmonous inflammation*, attended with considerable pain and general inflammation, (*i. e.* symptomatic fever,) which may be carried off by hæmorrhage, or by increased secretion, or which may terminate in suppuration. It is not, however, a common disease. After child-birth also, or abortion, it is subject to a peculiar kind of inflammation, extending to the peritoneum and all the abdominal viscera; and it has been considered by some as inflammation of that membrane, and not of the womb. *The disease in this town (London) has often been extremely formidable, and especially to women in high rank.* This inflammation arises sometimes from the lochia not flowing, both in child-birth and abortion. The placenta is in part torn off from the womb, and if the hæmorrhage (or lochia) does not arise, inflammation takes place. It takes place also from exposure to cold. It differs from phlegmonous inflammation in this point; it does not confine itself to one part, but extends itself; the pain also is diffused over the whole lower part of the abdomen, and even to the thorax, and feels more like spasmodic pain, often shifting from one side to the other; there is also a vast degree of soreness in the abdomen, so that the patient cannot bear to be touched, nor sustain the weight of the bed clothes. The symptoms of general irritation are present to a great degree; the pulse small, 120, and great depression of the muscular strength. This inflammation terminates differently from any other; the pain goes off suddenly, a sense of soreness remaining, and the patient is cut off. Sometimes the disease admits of a natural cure, by the lochia breaking out plentifully, or by a gentle easy sweat. On dissection we don't commonly find gangrene. There are various gradations in various cases of this kind of inflammation, and of the

phlegmonous. In delicate women the former is less mixed with common phlegmonous inflammation, and therefore the case is more dangerous. In robust women, in the country, the pure erysipelatous inflammation is less apt to take place, and in them the disease is attended with hardness of the pulse, and general inflammation, (*i. e.* high pyrexia.)"

It is observable that Dr. Fordyce does not call this disease puerperal fever; while his description well represents the cases to which the term is applied by most recent writers.

Dr. Osborne says, "Puerperal fever is a disease which occurs, or has been supposed to occur, only to women in child-bed; *about this I have some doubts*; for any fever happening to women in child-bed, would have some peculiar symptoms. It has been described by Hippocrates under the name of lochial fever, and of milk fever, from which it is very different. If this fever is to be violent, the rigor will be violent, and of longer duration. Another bad symptom is vomiting of bile, and an extremely quick pulse; there is often difficulty in making water, and diarrhoea, which latter is rather favourable; the lochia and the milk are generally suppressed, but not necessarily so; besides this, there is painful swelling of the abdomen, which is an invariable sign of this fever. I never saw it without this symptom. The abdomen is large, hard, and extremely painful to the touch; *and this is the pathognomonic symptom*. If fever arises after labour, without this symptom, we don't consider it puerperal fever. Though I have given this name to the disease with this pathognomonic symptom, yet I think the name frequently does harm; for the disease may vary according to the form of the prevailing epidemic fevers, which may be inflammatory, or nervous, or putrid; and the treatment should be different accordingly. Women, after parturition, have this symptom, and women not in childbed have it not; but this symptom does not make this fever different in its nature from other fevers. Its nature will be like the prevailing epidemic, and according to this you will regulate your treatment, or you will destroy your patient. By following the advice of systematic authors many lives have been lost, even under eminent physicians. This fever attacks women in child-bed more than others, because the uterus and parts connected, having undergone great exertion, are predisposed to the disease. *Tight bandages* are supposed to be also a predisposing cause; and *hot regimen* is another. Whatever be its cause, the average time of its coming on is from the third to the fifth day after labour. There have been instances of its coming on before labour. *This fever is always dangerous*. If the abdomen is large and hard, or if the pulse is very frequent, or if the patient lies fixed in one position, not being able to move herself, there is danger; but when all these symptoms are combined, there is extreme danger. If I find the pulse altered from 140 to 120, and that the patient has turned herself, I think her almost out of danger. There is frequently delirium, which is dangerous; and a difficulty in breathing, which is always so in this and in all fevers. We may always prognosticate extreme danger, and on an average *one in three dies*. This disease has been considered a genuine inflammation of the peritoneum, the intestines, or the uterus. What are we to know from the appearances after death?

The abdominal viscera are inflamed; serum and coagulable lymph are thrown out; the uterus is sometimes free from disease, at others inflamed; sometimes it has an appearance of suppuration; it is affected nine times in ten. Hence we may say that *puerperal fever arises from an affection of the uterus*. Doctors Denman and Leake, and Mr. White and Mr. Clarke have written on this subject."

These descriptions certainly pourtray the cases of the fatal disease met with in private practice. Dr. J. Hamilton's account is somewhat different, and seems to have been drawn from an epidemic affection of another form. He says, "The symptoms are, pyrexia a short time after delivery; in hospitals from eighteen to twenty-four hours; in private practice sometimes so late as the sixth day, followed by pain in the abdomen, not always fixed but shifting its seat; acute in hospital cases, in sporadic cases sometimes not so; vomiting of bilious matter, which ceases on the bowels being cleared; pain also over the eyes, and lowness of spirits at first; no swelling of the body, but it soon follows; then, uneasiness in breathing, and, as the pain is aggravated by the effort, the patient only half breathes; then a distressing cough; pain in the pit of the stomach; dulness of the eyes; despondency in the countenance; the heat generally increased; the pulse varies from 100 to 130; the tongue clean to the last, or only a streak in the middle, of a darkish brown or red colour; the patient has no inclination to drink, she lies on her back, despondingly, will not exert herself; the lochial discharge is unaltered; the secretion of milk soon ceases; the bowels are easily opened by medicine, or a spontaneous purging comes on; the stools are thin, dark-coloured, and have an intestine motion like yeast; a deceitful remission follows; the urine has a sediment pinkish, or sometimes it was like decoction of bark, in cases that proved fatal, but this is not a prognostic; a return of vomiting before death, generally bilious to the last; in one case only it was like coffee grounds.

"The symptoms then, are rigor, vomiting, pain of abdomen, uneasiness in breathing, despondency, heat of skin, frequency of pulse—but not great, no suppression of lochia, no secretion of milk, a spontaneous purging, which relieves the pain in the belly, a deceitful remission for a few hours, succeeded by tension of the abdomen, increased frequency of pulse, flushing of the face, another restless night, the patient thinking herself free of pain, yet has a cadaverous appearance; the fatal event preceded by vomiting and involuntary stools, not by delirium; sometimes the case protracted to the eleventh day.

"Such is the usual combination and course of the symptoms in hospital cases; in these there is little variety. In private practice they are not so uniform; sometimes no early rigor; the milk not always quite suppressed; lassitude, disinclination to talk or to give suck when there is milk; the pain not always acute; delirium, and profuse coffee-coloured vomiting, and great tension of the belly when there is no previous purging, precede death. A salutary crisis sometimes happens, by perspirations or a large discharge of turbid urine. The state of the pulse will direct the prognosis. Death is sometimes on the third day, or not before the fourteenth. Sometimes the disease is fatal without sordes on the teeth, and delirium. The sooner it

attacks after delivery, and the less complaint the patient makes, the greater is the danger.

"The appearances on dissection are more similar in hospital cases than in private practice:—Fœtid gas escapes on opening the abdomen; fluid, like milk-whey, with curdy matter in it, is found among the guts; these are glued together, their peritoneal coat in a state of intense vascularity, with suppuration and gangrene of the intestine; the uterus untouched; it appears dark from the change in the secundines, but on wiping it clean its substance is found entire. Dr. Clarke said the fluid in the peritoneum was brown, and had a fishy smell; it is the serum of the blood, different from that in hydrocephalus, not unlike that in ascites; but this has an acid, and forms a precipitate with lime water, and has not, on standing, a smell as that in the puerperal cases."

This is indeed an exquisite portrait of a puerperal affection that must be regarded as more than a local inflammation, as in truth a fever, and a malignant disease. It is also manifest that such a description is formed by a combination of the phenomena of various cases, and not by a generalization of the characters common to all the cases. Many of the features portrayed by Dr. Hamilton were absent in these cases which I have narrated; and some of them were intensely exemplified in case IX., which I do not regard as one of puerperal fever. The greater number of the symptoms of this disease, as it appears in private practice, may be seen in cases of pure peritoneal, intestinal, and uterine inflammation in the puerperal state, for this state gives to most of the cases of abdominal inflammation an erythematic character; but the aspect of a puerperal fever case, viewed as a whole, is characteristically peculiar. Dr. Hamilton is, I believe, justified in saying that there is no other disease similar to it in any other condition of the human body than that of parturition, and possibly of miscarriage, as Drs. Fordyce and Gooch declare; nor is there any simple puerperal inflammation which in its results resembles it. In no case of effusion, from ordinary peritonitis, is there sudden sinking like that in puerperal fever; in this respect, my case XXI. supplies an interesting standard of comparison.

In one or two characters, my observation of puerperal fever, which is, however, very limited, is opposed to Dr. Hamilton's account of this disease in private practice, namely, the occasional absence of rigor, and protractedness of the disease. The early rigor appears to be a constant characteristic; and death usually happens much earlier than the fourteenth day.

(To be continued.)

ON THE GENERAL CHARACTERS OF LIVING BEINGS, AND MORE ESPECIALLY OF MAN.

(Continued from page 310.)

(Third Paper.)

Peculiarities of Man.

MAN. OTHER MAMMALIA.

Foramen Magnum.

Just beneath the *centre* Near the *back* of the
f the base of the skull. skull.

Condyles.

Horizontal.

Very oblique.

Face.

Immediately *beneath* the brain. In front of the brain.

Vertebral Column.

Only slightly curved, and pyramidal. Lumbar portion long and strong compared with that of lower animals. Not pyramidal. Cervical and dorsal portion large and strong; lumbar short, and proportionably not so strong as the other.

Pelvis.

Sacrum broad, and ilia widely expanded; acetabula thrown very far apart. The whole pelvis *oblique*, and the weight of the body transmitted almost vertically from the top of the sacrum to the thigh bone. Sacrum lengthened and narrow. Whole pelvis long, narrow, and in a *line* with the vertebral column.

Lower Extremities.

Very long, and in a *line* with the trunk. Neck of femur oblique and long. Knees obliquely directed towards each other. Form an *angle* with the trunk.

Articulating surfaces broad, and inner condyle of femur lengthened, so that the two are on the same horizontal plane.

Narrow.

Foot large, broad, and strong; sole concave, giving an arched form to the foot.

Foot small; no heel.

Upper Extremities.

Short, and used for prehension *only*. Long, and used for progression.

Muscles.

For drawing the head back more powerful than their antagonists. Head supported by the ligamentum nuchæ.

The glutei, extensors of the leg, and the muscles of the calf, are very powerful. These muscles are proportionably less powerful than in man.

General form of the Trunk.

Chest.

Large and expanded laterally, flattened in front. Antero-posterior diameter of the chest greater than the transverse.

Sternum short and broad. Considerable distance between the lower ribs and ilia. Lower ribs and ilia approximated.

Abdomen.

Viscera supported by the expanded pelvis. Viscera supported by the abdominal muscles.

Hands.

The thumb of the human hand can be brought into exact opposition to the extremities of all the fingers, and minute objects. In apes the thumbs are short and weak, and the fingers long and slender; their tips can scarcely be brought into opposition,