Remarks on puerperal fever / A.L. Peirson.

Peirson (A. L.,)

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REMARKS ON PUERPERAL FEVER.

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Among the morbid affections peculiar to the puerperal state, inflammation within the abdomen is among the most dangerous and dreaded. The complaint makes its appearance in a neighborhood only at long intervals of time, so that a practitioner may have become largely experienced in other diseases without having seen a case. This consideration, mainly, has induced me to offer a few facts and observations drawn from my own practice for the last two years. The opportunities of comparing the morbid anatomy of cases of puerperal fever with the symptoms in such cases, have been exceedingly rare, and to this is to be traced the great variety of opinions promulgated as to its proximate cause. Mr. Hey of Leeds, who records his want of success in the first cases which he treated, in the epidemic at Leeds, in 1809, with most frank and honorable fidelity, gives us no light as to the morbid appearances by a single dissection. His seven first cases were all fatal, and of his first fourteen cases three only recovered. After witnessing

some good effects from purging in the treatment of this eighth case, which was the first that recovered, and from perusing the treatise of Dr. Gordon of Aberdeen, Mr. Hey began to doubt whether the early and sudden sinking which occurred in these cases was evidence of a typhoid or putrid state, and ultimately used venesection and other remedies appropriate to inflammation with almost complete success.

The publication of Mr. Hey's book and some others which followed, gave a decided character to the treatment of puerperal fever. Peritoneal inflammation was for the most part looked to for explaining all the symptoms. Within the last few years, there seems to be a disposition to admit the occurrence of cases in which contra-stimulant remedies, especially bleeding are inadmissible, and that there are numerous cases of a mixed character in which great caution must be used in applying debilitating remedies, although they may be required to a certain extent. The recent works of Marshall Hall, and Dr. Gooch upon the diseases of females are exceedingly rich in discriminating details. But the treatment of the disease, especially in regard to the use of blood-letting is still far from being settled, and it will be useful to consider some circumstances on which this indecision depends.

In the commencement of this disease there is often great depression and apparent debility, without any marked pain or increase of vascular action. And this is not owing to a congestive state of

the blood-vessels, such as is relieved by bleeding. On the contrary, bleeding is borne very ill, and patients faint with a very slight loss of blood. The explanation seems to be, that the nervous system is overpowered by sympathy with the morbid impressions made upon a membrane so extensive as the peritoneum. This extensive sympathy is distinctly witnessed in all cases in which a foreign body is admitted to the cavity of the peritoneum; and the symptoms in cases of perforation of the intestines by ulceration, and in those where there is a sudden effusion upon the peritoneum of the confined matter of an abscess, are not unlike those of the first stage of puerperal peritonitis. There is the same sunken countenance, the same small, frequent, feeble pulse, the same restlessness and irregular distribution of animal heat. There is no condition of disease in which the nervous system is more powerfully acted upon than that in which the contents of some part of the alimentary canal have been suddenly let in upon the peritoneum, in consequence of the intestine becoming perforated by ulceration or violence. The following brief relations, will recall to the experienced reader many similar instances, and will serve to illustrate the shock by which the vital powers are prostrated in the commencement of puerperal fever, and which is only to be met by cordials and stimulants.

1. A man of about fifty years of age had been suffering for many weeks from a schirro-contracted rectum. On the day of his death he appeared feeble, but

not otherwise disordered, when suddenly he became attacked with severe pain and tenderness *all over* the abdomen. He had sense of sinking and faintness at the epigastrium in an extreme degree; frequent, small, and feeble pulse; great restlessness; cold extremities, and death in twelve hours from the attack. I examined the body the next day in company with his attending physician, and found an ulceration through the rectum, just above the contracted part through which had passed several balls of fœcal matter of an inch in diameter.

2. In the following case the superior part of the canal gave way. A young woman, a domestic in a family, in the Autumn of 1829, was attacked with vomiting and pain in the epigastrium. She had a very anxious countenance, rapid, small, feeble pulse; coldness of the extremities, and great restlessness. I visited her, in consultation, in the afternoon of the day on which she first gave up her work, and she died during my visit. On examining the body the next day, the stomach was found perforated by a round hole about three-fourths of an inch in diameter, and not surrounded by any marks of inflammation, by which the contents of the stomach had been let in upon the peritoneum. The perforated portion of the stomach is preserved in a collection of morbid preparations in this town and closely resembles the representation of a perforated stomach in the plates to Baillie's Morbid Anatomy, (Fasc. 3. Pl. 5. Fig. 2.)

3. The following is a case of still a different kind,

producing analogous symptoms. A fine lad of fifteen years old was suffering under an inflammation of an obscure kind, but evidently seated in the abdomen, which was tender to the touch, especially in the left iliac region. For this affection he had been bled, leeched, and blistered, with alleviation of the symptoms, when very suddenly, August 10th, 1828, at four o'clock, A. M. he became affected with a severe rigor, and at six o'clock was attacked with acute pain and extreme tenderness of the abdomen, accompanied by great paleness, cold extremities, pulse 140, small and feeble. Death took place nine hours from the access of the rigor. On examination of the body, I found a considerable abscess had been formed by the side of the rectum, low down in the pelvis, bounded in front by the bladder and abdominal parietes, and covered by the small intestines, which formed the upper wall of the abscess. The cavity of the abscess, which was capable of holding a pound, was found partly empty, and pure pus in contact with the intestines, the peritoneal coat of which was but slightly altered in appearance. The symptoms just previous to death were occasioned by the bursting of the abscess. Every one who has seen the rapid sinking which occurs in bad cases of puerperal fever, will admit the similarity between the symptoms in these cases and those of the cases I have brought forward.

All practitioners perceive and admit the necessity of active treatment in this highly dangerous disease. But active treatment to be useful, must be applied

early in the disease;—and here lies the principal difficulty. For the peritonitis of the parturient condition frequently comes on so insidiously, and is so liable to be confounded with many of the slight disturbances and even the usual phenomena of this condition, that however disposed the practitioner may be to strike a blow which will quash the disease at the outset, he is prone to wait for some unequivocal symptom to determine the diagnosis, which perhaps does not appear till the disease has gained a formidable advantage. I know of no help for this, except what is to be found in discriminating tact and experience on the part of the physician. There is certainly no one symptom which can be depended on as a guide to active treatment. The whole case, in all its circumstances, must come under consideration, and even with the best opportunities to consult and deliberate, he is a happy man who can say he never was puzzled.

Tenderness on pressure is seldom a sure criterion. Almost every woman will flinch from pressure for three or four days after suffering parturient pains. And in more than one severe case of puerperal peritonitis, I have known the patient refuse to acknowledge that any pain or soreness was felt on pressure.

Pain is a very uncertain mark, frequently not appearing till the last stage, if at all, and when it does appear in the early stages, is easily confounded with after pains.

Rigor is very commonly observed to precede the

other symptoms, and my own experience does not remind me of a case in which this symptom was absent. But it also precedes the coming of the milk, and in irritable habits precedes or accompanies every little exertion, and the performance of any function, such as micturition, digestion, &c.

Pain of the head, which usually accompanies the disease of which we are speaking, is also a concomitant of many slight indispositions. Suppression of the lochiæ is not always a symptom which exists in the early stage of puerperal fever, and were it otherwise, the discharge varies so much in different women, and is usually so much diminished just before the appearance of the milk, that it is not of the highest value as a diagnostic symptom.

The sudden retrocession of the milk is more to be depended on, but in at least one fatal case, I have known this secretion continue with variable quantity till death.

The tongue is usually coated, but in some cases is entirely clean. *Extreme thirst* and *a most pungent heat of the skin*, oftentimes accompanied with *profuse perspiration*, and in some instances with miliary eruptions, have occurred to me as among the most certain symptoms.

The observation of the pulse is of the very first importance. This is always increased in frequency at last, if it be not so in the first of the disease; and its becoming less frequent is among the best signs of recovery that can occur. On finding a patient a few

hours after delivery with a pulse of 100 and upward, I am immediately led to inquire if she has experienced rigors, if she is thirsty, has headache, heat of the skin, interruption of sanguineous discharge, tenderness on pressure of the abdomen and gastric sinking. On the answers to these questions a tolerably correct, although not infallible diagnosis may be founded. The worst cases usually occur before the secretion of milk has commenced, but if milk has appeared it is highly important to know if its secretion continues or is suspended.

Marshall Hall has described a set of cases under the title of a 'Serious Morbid Affection,' in which there is much tenderness of the abdomen, acute pain, and many other symptoms in common with puerperal peritonitis, and which he maintains do not depend on inflammation but upon irritation, principally produced by the fœcal contents of the large intestines. These cases are aggravated by bleeding and drastic purges and relieved by laxative enemata and mild opening medicines, while the patient is supported by cordials and tonics. Of the excellent adaptation of Mr. Hall's remedies to relieve the symptoms, I have no doubt; but it by no means follows, that these are not cases dependent on peritoneal inflammation, because they require forbearance from debilitating remedies. Is not inflammation of the peritoneal coat often a sufficient reason why the fœcal contents of the alimentary tube are retained? In fact, is it not a very common case, that large quantities of solid fœcal matter will

be parted with, so soon as the inflammatory state of the peritoneum, which has retarded peristaltic action, has yielded to bleeding and other remedies? If this is so, it may be that Mr. Hall, in at least some of his cases, has transposed the cause and the effect.

There is also a spasmodic affection of the uterus, which may mislead us in diagnosis, a case of which I shall give in the sequel.

The prognosis of puerperal fever is not without difficulties. I do not, however, intend to point them out, but to call attention to one very common source of mistake in fatal cases. There is a deceptive amendment, which occurs after effusion takes place in the abdomen. The pulse, tongue, countenance, and sensations of the patient improve, and the friends and oftentimes the physician, join with her in expecting a recovery. This is the same temporary relief of the distended vessels, which is found to take place in croup and other inflammatory diseases, in which serum or fibrin are poured out.

The favorable termination of the disease is sometimes accompanied by diarrhœa, which although in part induced by the medicine we use, especially by large doses of calomel, is nevertheless kept up spontaneously, and is probably critical.

In speaking of the treatment of this disease I have no reason to dissent from the established principles adapted to the treatment of inflammatory diseases. In any case which I have seen, where, following a rigor, there is abdominal pain, soreness, hard pulse,

heat of skin, and coated tongue, a full bleeding will do more to arrest the disease than any other remedy. Cathartics, especially of calomel, large enemata, sinapisms and blisters, come next in importance. Leeches are of great value, especially where the pain is circumscribed. Cordials are usually administered by the attendants on the access of the chill, and as far as I have observed with good effect. The use of occasional doses of opiates has seemed to me admissible in every case, and where symptoms of sinking and depression exists, a combination of opium, ether, and ammonia has been particularly beneficial. When the bowels have been urged by purgatives to some degree of exhaustion, opiate enemata have been particularly beneficial. Fomentations, when skilfully managed, have appeared to co-operate in relieving pain. The oil of turpentine is a singularly efficacious purge in cases of accumulation in the large intestines. Some of my medical brethren, of very extensive experience, and in whose opinion I place the greatest reliance, believe this remedy may be relied on as the principal one in the treatment of the disease. My own experience does not warrant me in speaking so confidently of its good effects. It certainly has not maintained the high character given it by Dr. Brennan, of Dublin, who called the attention of the medical public to its use in 1814. A critical analysis of his pamphlet may be found in the London Medical and Physical Journal, Vol. 32, page 403.

In patients slowly recovering from puerperal fever,

the choice of a laxative is often a point of great importance. It sometimes happens, that medicines which are very mild and gentle in their operation, succeed better in clearing the first passages than more brisk cathartics. I have found fifteen or twenty grains each of powder of rhubarb and magnesia in syrup of ginger and distilled mint water repeated every three or four hours till effect, a most useful and agreeable prescription.

The *early* administration of tonics is particularly called for in this disease. The frequent pulse, the heat of the skin, and the general restlessness will sometimes, in the late stages of the disease, when it is disposed to a favorable termination, be increased by the exhibition of evacuants, and yield kindly under the administration of tonics. This is similar to what is sometimes observed in opthalmia and other external inflammations, in which there is frequently a period when the treatment may be advantageously changed from the debilitating to one directly opposite. The sulphate of quinine presents an admirable article for a tonic prescription in these cases, and may be combined with myrrh, with sulphate of iron, and with laxatives, so as to present very neat and efficacious prescriptions.

There is one subject connected with puerperal fever, which has not yet received any considerable share of philosophical examination. I mean the question of its contagious character. I will not go minutely into the long discussion this question would

call up, as I have not attempted in these remarks a history of the disease, but only to call the attention of readers to particular points in the pathology and treatment of the disease, such as my own experience has (painfully in many instances) strongly impressed upon my own mind. The first remark I have to make on this subject is, that nearly all the cases of puerperal fever which have happened in this town, and all the fatal cases, as far as I know, have occurred in my practice. The first case of puerperal fever which I ever saw was about the 1st of January, 1829, at which time there had occurred in my practice more than five hundred births. This case was fatal on the fourth day. I did not inspect the body after death. The two next cases of delivery which I attended were likewise fatal cases of puerperal fever. I have annexed the dissection of one of these cases, which appeared at the time in the Boston Medical Intelligencer. The two next women I attended had the disease severely and recovered. These cases all occurred in the first nineteen days of January. After this I had no case occur, although I continued to attend the delivery of my patients, till March, when I had two cases of moderate severity, cured by a free bleeding, a purge, and blisters; and in July a fatal case occurred, the principal phenomena of which I have described in the sequel. This patient was brought to bed on the 26th of June. On the 25th, I attended another woman who had the disease with great severity and recovered. Up to

this period, I am not informed that a single case had occurred in the practice of any other physician. Since that period, I have had no fatal case in my practice, although I have had several dangerous cases. I have attended in all, twenty cases of this disease, of which four have been fatal. I am not aware that there has been any other case in the town of distinct puerperal peritonitis, although I am willing to admit my information may be very defective on this point. I have been told of some 'mixed cases,' and 'morbid affections,' after delivery. The very great importance of this subject to every practitioner of midwifery must be my apology for introducing matters of personal concernment. Having candidly and fairly stated the fact, I may be allowed to offer my opinion, which can easily be separated from my statements, by those who do not agree with me. After the best examination I have been able to make, I have settled my own belief, that the disease is not contagious. The facts and considerations upon which I rest this belief cannot all be brought up in this brief communication. But I cannot reconcile to a belief in the contagiousness of the disease, that consulting physicians, and attending nurses, have never happened to communicate the disease; that minute dissections made in the presence of several practitioners have never spread the contagion; that women who have been confined in the same houses and the same rooms with those who died have not had the disease; that long intervals elapsed between my cases in which

many births occurred without the disease appearing; that I had cases occur when I took the most minute precautions as to change of dress, &c., and the reverse when I neglected all precaution. Still, however, the facts are remarkable, and I leave them to the explanation of more experienced practitioners. It is certainly true, that in the history of almost every epidemic puerperal fever we learn that most of the cases were attended by one practitioner. Dr. Armstrong remarks, (Ed. Med. and Surg. Jour. Vol. 10, p. 446,) that in the epidemic in Sunderland, in 1813, all the cases were attended by one practitioner, Mr. Gregson, with three solitary exceptions. This gentleman lost four patients in one week. Dr. Armstrong attributes these facts to contagion.

The cases which follow, and which I have compressed as much as possible, will serve to exhibit the post mortem appearances, to give an instance of successful treatment by the usual remedies, and to call the attention of practitioners to a case important to be distinguished from inflammatory affections.

CASE I.

The subject of the following case was a lady of fine constitution and previous good health, aged thirty-one years. She was brought to bed of her fourth child January 2d, 1829. The labor was easy, natural, and no untoward circumstance occurred. Having been troubled with after-pains at the birth of her last child, she was ordered an opiate. Two doses of

twenty drops Tr. Opii produced comparative ease. There was no unusual pain, soreness, or distention of the abdomen. In the afternoon of the second day, she had a slight rigor, which was dispelled by some warm gin and water, and the secretion of milk in usual quantity immediately followed. These were the customary symptoms of her previous confinements. On the third day she took half an ounce of Epsom Salt, which produced satisfactory movements of the bowels. On the morning of the fourth day, she complained of slight oppression at the stomach, and depression of spirits; she was relieved by a little peppermint, and in the afternoon sat up for a short time, and told the nurse she never felt better in her life. On the morning of the fifth day, she awoke with considerable oppression and slight nausea, for which the nurse administered half an ounce of wine of antimony, which was followed by free vomiting of a profusion of green and yellow bile, and with great relief. At noon of this day, I found her with a pulse of 80, soft and moderately full, a clean tongue; she complained of heat and burning of the throat, and was somewhat exhausted by the emetic, which had not entirely ceased operating. She took a draught of infusion of chamomile, after which the vomiting ceased till it was renewed on taking a diaphoretic medicine at night, and it continued at intervals till her death. At ten o'clock at night, the pulse was 144, soft and feeble, the respiration hurried, the voice feeble and indistinct, and the sensorium affected with

a peculiar kind of talkative delirium, resembling the phenomena of ebriety. The abdomen was now slightly tumid and tender, but there was no complaint of pain. These symptoms continued till ten o'clock of the next day, the sixth from her confinement, when she expired, exhausted, and with very little apparent distress. The secretion of milk and flow of lochiæ were natural in quality and quantity on the fifth day. The tongue continued clean and moist to the last. The patient had a careful nurse, who had been her attendant in all her previous confinements, was surrounded with the comforts and conveniences of life, was of a cheerful disposition, and had committed no error in diet or management. The second and third nights and days after her confinement were the coldest we have had for two years. It has been observed, (Gardien *Traité d'Accouchemens, tom. 2. p.* 368,) that more cases occur in winter than in summer, and hence the influence of cold is reckoned among the exciting causes of the disease. But in this case the patient was every way well protected, and the usual phenomenon of the effect of cold, diminished secretion, did not occur.

Pathological phenomena, two hours after death. Abdomen tumid, external appearance otherwise natural, except purple appearance of back and nates, from gravitation of blood. On opening the cavity of the peritoneum, a quantity of limpid, straw-colored fluid escaped. About a pint of the same fluid, mixed with whitish threads of lymph, and having a little purulent

sediment, was found in the cavity. Intestines much distended with flatus. Peritoneum, both of parietes and intestines presented a mottled appearance, from a turgid state of the blood-vessels, apparently containing venous blood. The omentum was thickened and contracted. Patches of lymph were observed, especially on the surface of the viscera, lying in the pelvis; a large patch was found on the posterior part of the uterus. Mucous coat of the bowels and the bladder exhibited no appearance of disease. Liver natural, except paler than usual. Stomach contained a portion of yellowish fluid, and had on its mucous surface a large number of small purple spots, principally about the great curvature; the largest collection of these was about the size of a dollar. The uterus was about the size of a common cocoa-nut, its walls moderately firm, and exhibiting, as to its size and feeling, the appearance which might be expected on the sixth day from parturition. Its internal surface was lined with a gluey exudation, easily wiped off. The attachment of the placenta was at the fundus, and there was a slight purple appearance at this part There were several purple spots at the os tincæ, larger but similar to those in the stomach. The right ovarium was about the size of an almond, and darker colored than natural. The fimbria of this side was of a deep purple. There was no putrefactive smell or appearance in any part examined.

CASE II.

The subject of the following case was a lady previously in good health and of a sound constitution. She was delivered on the 26th of June, 1829, of her third child, after a short labor, in which nothing unusual occurred. The secundines followed naturally within fifteen minutes. Her former labors had occurred in my care, and had been natural, and her recovery rapid. The delivery occurred at sunset, and she passed a comfortable night. She dreaded after-pains, which she had experienced with her last preceding confinement, and took two grains of opium during the night. After-pains, however, continued for forty-eight hours, the uterus feeling hard and contracted. The lochiæ were very abundant.

On the 27th she experienced headache, which was attributed to the opium. She took castor oil and some diaphoretic medicine, and passed a tolerable night.

On the 28th she had no remarkable symptoms and the headache was not severe.

On the 29th after rather a restless night, she complained of more headache, with uneasy sensations at the stomach. The breasts were filled with an abundant flow of milk. She had this day a purge of calomel, followed by oil and leeches to the head, which bled freely and instantly relieved the pain. There were on this day some slight rigors, which were attributed to the flow of the milk. The pulse not remarkably altered, the skin moist and warm.

On the 30th there was some headache, for which, although not severe, there were leeches applied, with immediate relief. There had been no pain or unusual tenderness in the abdomen. Although there was some shrinking when the uterus was firmly pressed upon.

On the evening of the 1st of July she experienced some chilliness, with a sense of oppression at the epigastrium and slight nausea. Chilliness was followed by great heat of the skin and profuse sweating. Pulse 120, of moderate force and hardness. Was bled to ʒ viij, when she became faint. Took pulv. ipec. with ant. tart. and vomited freely with relief of the gastric oppression and nausea. Took ten grains of calomel, to be followed with castor oil in the morning.

On the 2d July complained of no pain, pulse 115. Has had several dejections, loose of natural color. Complains of sense of heat at the stomach. Was ordered emp. cantharid. to the epigastrium, and powders of calomel, pulv. antimonial. and camphor to be taken every four hours, with a diaphoretic draught in the intervals.

On the 3d the symptoms continue. Slight fulness of the bowels. Abdomen bears pressure without pain, except when applied distinctly to the uterus or ovaries, especially of the left side, in which parts a soreness is felt. The whole surface of the abdomen below the umbilicus was freely vesicated. Tongue which had hitherto been clean, slightly coated with

brown fur at the back part. Lochiæ nearly disappeared, flow of milk rather diminished. Passed a restless night partly from being disturbed by the noise of cannon, &c. Evacuations from the bowels rather frequent, small and fetid.

On the 4th had some appearance of amendment, pulse 112, skin cooler and moist, tongue moist. Passed a tolerable night, and on the 5th expressed some feelings of amendment. Pulse 108, abdomen rather full, and when pressure is applied, complains of pain only from the vesication. Can lie on either side, but prefers to lie on her back. Has some degree of pain in the umbilical region.

On the morning of the 5th, at four A. M. was seized with a rigor and coldness of the extremities, extreme nausea, with sour and bitter eructations, followed by severe pain in the hypogastric region, shooting up to the stomach. Pulse 160, very small and feeble. Countenance pale and sunken. Took ten grains of pulv. ipec., and after vomiting, 120 drops of acet. opii, had seven leeches applied to the hypogastric region, and renewed vesication of the superior parts of the abdomen. Pain was checked by the opiate, and ceased entirely after two hours. Nausea continued in considerable degree. It was agreed, in consultation, that she should take sulph. quinine gr. ij. every four hours, and intermediately at the same intervals, four drops of Fowler's min. sol., to be allowed brandy and water till the heat of the skin and fulness of the pulse prohibited. Opiates pro

re nata. Under this course, the patient rallied somewhat, but without essential amendment. At the same time, she was ordered a julep of carb. sodæ, tr. cinnam., powdered charcoal and water, to correct a sour and bitter taste of the mouth, with unnatural fetor of the alvine discharges.

On the 6th, at sunrise, same appearances continue; can turn over and lie on either side, and breathe with little or no difficulty. There is occasional hiccough, and the convulsive action of the diaphragm is attended with sharp pain. At other times does not complain of pain, nor of much soreness upon pressure. She continued to sink without much change in the symptoms, till ten o'clock, A. M. when she died.

Examination of the body twelve hours after death. Abdomen more tumid than after delivery, but by no means tense. On opening the abdominal cavity the peritoneum *lining the parietes* was natural in appearance. Where it *covered the intestines*, it uniformly exhibited marks of recent inflammation. The small intestines were glued together with an exudation of lymph. The omentum was thickened. The peritoneal covering of the uterus was the only part where this membrane exhibited by its redness any increased vascularity. The ovaria were enlarged and soft, and were covered, especially the left, with lymph. The fimbriæ were of a deep purple color. The abdominal cavity contained about a pint of serous fluid mixed with flocculi of lymph. The surface of the liver was covered with an exudation of the same substance, so

smooth and uniform as to constitute a complete factitious membrane. The substance of the uterus when cut into was pale, firm, and its walls about an inch in thickness. Its cavity contained a small quantity of dark, bloody mucus without fetor. The part whence the placenta was detached, was plainly distinguishable. Its internal surface exhibited no marks of disease, and its size was not thought to be unnatural. The internal surface of the stomach and duodenum, and of the other intestines as far as inspected, was free from any marks of disease. The intestines were nearly empty. The mucous coat of the bladder exhibited no mark of disease.

The most obvious remark in this case is, that the local symptoms were greatly disproportionate to the actual severity and danger of the disease. The pain was never severe till the morning of the sixth, when it lasted but for one hour, and was quieted by twenty drops of acet. opii. The lochial discharge continued freely for six days, and was profuse for the first three or four; and the day before death reappeared in a moderate degree. The secretion of milk, which was at first abundant and regular, was never wholly suppressed, although its quantity varied with the state of thirst, perspiration, evacuations, and other obvious causes, and at the time of the patient's death the breasts were distended with milk.

CASE III.

Mrs. C. aged about thirty years, was brought to bed of a fourth child, Sunday evening, Nov. 14th, after a very short, easy, and perfectly natural travail.

On Monday, 15th, she took ol. ricin. ʒ ss. and had several stools. Nothing unnatural occurred this day, and the flow of milk commenced at evening.

On Tuesday, 16th, appearances were perfectly favorable, as in her former lyings-in.

On Wednesday at my morning visit, the same favorable state continued.

On Thursday morning, 18th, I found her much changed, and received from the nurse the following account. During the afternoon of Wednesday, she felt some general uneasiness, and at eight, P. M. had a rigor, which was followed by moderate pain in the abdomen. This pain increased till midnight, when it was most excruciating, and produced difficulty of inspiration. There was considerable thirst, and some degree of headache. The nurse had given some hot tea and a cordial during the rigor, and in the morning a dose of oil. The pain had become more endurable since midnight. My visit was at ten, A. M. when I found the pulse 120, rather full, skin hot, sweaty, and the secretion of milk nearly suspended, the lochiæ not much diminished or altered; the abdomen rather tumid and exquisitely tender; tongue moist and slightly coated. There was pain all around the abdomen, shooting up the sides, and

affecting the breath. I took sixteen ounces of blood from the arm, when some degree of fainting came on, directed six large leeches to the abdomen, and to have the bleeding from their bites encouraged by a large warm poultice. I directed twelve grains submuriate of mercury to be taken immediately, to be followed in two hours by the following purging draught. ℞. Ol. ricin. ol. terebinth, syr. simp. ana ʒ i. misce. s. ʒ ss. omn. 2d hora. Some relief was obtained by the bleeding, leech bites bled very freely, five dejections followed the exhibition of the first dose of purging draught. These were feculent, and healthy looking, and each contained some portion of fecal stool. At five, P. M. she was directed to take half a grain of tart. antimon. every hour till some degree of nausea is produced, and to take once in four hours one of the following powders. ℞. Subm. hydr. ʒ ss. Pulv. opii gr. iij. Pulv. digitalis gr. 10. Tart. antimon. gr. ij. Mix. div. in chs. No. xij. Let a blister 10—10. be applied to the abdomen.

At ten, P. M. took fifteen drops acet. opii.

Friday, 19th Nov. seven, A. M. Has passed the night with considerable sleep and without much pain, except griping in the bowels, which she plainly distinguishes from the pain of inflammation. At about five, A. M. began to have pain in the right iliac region, affecting the respiration, this pain has now become quite severe. Pulse 130, moderately full and strong. V. S. to fourteen ounces, when slight faint-

ness came on. Sinapism to the seat of the pain. Has had no nausea from medicines. Let the powders and the solution be continued as before. Has had five more fluid dejections, rather small in quantity. The blister rose well, and the tenderness of the abdomen has somewhat lessened; its tumefaction still considerable, but not increased from yesterday. At ten, A. M. the griping pain continuing, with one or two small dejections, she was ordered an enema, with seventy drops tr. opii. This procured considerable quiet rest and relief of the griping pain. At eight o'clock, P. M. gums appear slightly swollen, and feel sore—let the powders be omitted till morning, continue solution. Let her take twenty drops acet. opii at ten o'clock.

Saturday, Nov. 20th, eight, A. M. Passed a tolerable night. Did not take the antimonial solution, as the stomach felt unpleasantly. Pulse 110. Tongue moist, slightly coated. Secretion of milk has returned, and breasts are hard. Has had no pain and bowels not so tense. No dejection. Let her have two tablespoonfuls of the terebinthinate mixture ordered on the first day. The powders to be given only at night and morning. Omit the solution. Eight o'clock, evening. Was hot and restless in the middle of the day. Pulse 118, soft and full. No dejections. Let her have a common laxative enema, and after its operation twenty drops acet. opii.

Sunday, Nov. 21st. Had several dejections from the enema, not copious. Pulse 110, rather full and

soft. Passed rather an uneasy night. Gums uncomfortably tender. Omit powders. Let her have infus. quassiæ ʒ ij. every four hours. Let her have beef tea. Let her have an opiate at night.

Monday, Nov. 22d. Had several dejections yesterday, and a good deal of forcing and ineffectual inclination to stool. Passed a very uncomfortable night, in consequence of the distended state of the bladder, no urine having passed for the last thirty hours. Three pints of urine were drawn off. Pulse 100. Abdominal distress much abated, and general appearance improved. Continue infusion and opiate at night.

Tuesday, Nov. 23d. Had two dejections, considerably large, in the night, and has frequent inclination to stool, with only small, liquid, fetid evacuations. I learnt to-day for the first time, that in the first stools which the patient had had after her confinement, large quantities of raisins were found, and that occasionally since, the skins and seeds of raisins continue to appear. The patient confesses that a fortnight before confinement she had indulged in eating a great deal of this fruit. She has to-day a good deal of gastric sinking and faintness after every evacuation. Pulse 104, soft and full, and easily compressed. Let her take a tablespoonful of the following mixture once in two hours. ℞. Camphor. ϑ i. Ammon. Carbon. ʒ i. Ol. Anis. gtt x. Spt. Ether. Sulph. ʒ i. Pulv. Acaciæ ʒ i. Aquæ Puræ ʒ vss. M. f. Mistura. Omit the infus. and take one grain of

sulphate of quinine in a little brandy and water every four hours. Let her have twelve drops tr. opii. after every dejection.

Wednesday, Nov. 24th. Has had several dejections during the night, but without faintness. At five, P. M. removed two pints of urine with catheter. General appearance convalescent. Continue quinine. There has been a slight secretion of milk for the last three days. Lochiæ nearly ceased.

Thursday, 25th. Pulse 80, soft and feeble. Has had no alvine discharge since night before last. Let her take two tablespoonfuls of the following mixture, every three hours, till the bowels are moved. ℞. Pulv. rhei, magnesia calc. ana ʒ i. Syrup Zingiberis ℥ ss. Aq. menth virid. ℥ iss. Aq. puræ ℥ ij. Misce. Afterwards to continue the quinine. A small quantity of urine has been spontaneously evacuated several times since yesterday.

Friday, 26th. Three doses of the mixture have been taken, and the bowels have been thrice moved. Feces are of tolerable consistence and natural color. Continue medicine. From this period the catheter was dispensed with, convalescence went on slowly, and at the end of three months the patient was fully recovered, the secretion of milk not having been entirely lost.

CASE IV.

Spasmodic pain of Uterus, simulating Puerperal Fever.

Mrs. C. T. J. was brought to bed of her seventh child, at one o'clock, A. M. of Monday, the 25th of October. She suffered considerable flooding, which was checked by powder of ergot and moderate pressure. She was made faint by loss of blood, and her pulse was much reduced in volume. The pains brought on by the ergot were moderate, but sufficient to contract the uterus to its usual size. During the day of Monday, she was somewhat restless, thirsty, and uneasy, had moderate after-pain, and some degree of tenderness of the abdomen. She passed a tolerable night, but did not obtain much refreshing sleep. At six o'clock, on Tuesday morning, she got a dose of ol. ricini, which operated well; one dejection. At nine, I made the usual daily visit, when I found her with some degree of remitting pain low in the pelvis, moderate tenderness of the abdomen in this region, and the uterus hard and firm, and rather small within the pelvis. She had experienced a considerable degree of headache ever since her confinement. At one o'clock I was again sent for, and found that her pains had been increasing ever since my visit, and were now excruciating. They were described as cutting pains, as if a knife was piercing some organ in the pelvis. The tenderness of the abdomen was extreme, so that she screamed on the

first touch of the hand. The uterus could be felt in a hard contracted ball. Pulse very small, 120 in the minute. Headache increased, and thirst extreme. Had experienced no distinct rigors, but remembers to have been chilly for a long time after her child was born. I administered twenty drops of acet. opii; directed a pint of hot water to be administered as an enema, and the bowels to be fomented with water as hot as could be borne. Half an hour after the opiate she took one tablespoonful of a mixture of equal parts of ol. ricin. ol. terebinth. and simple syrup, to be repeated every hour till the bowels should be moved. I visited her again in three hours, when I found her free from pain, dozing, her skin moist, her headache relieved, and the tenderness of the abdomen nearly vanished. The uterus now could be felt, full, soft, risen up out of the pelvis, and twice as large as when contracted in the morning. The milk has not yet made its appearance, and the lochiæ are abundant and have been uninterrupted; their flow was rather increased during the paroxysms of pain.

The next morning, Wednesday, 27th, the symptoms were much improved;—pain gone, soreness slight, pulse 100, more full and soft. Enemata were administered, and several dejections followed. Had had several dejections on Tuesday night from the oil. A coated tongue, and slight headache continued for twenty-four hours after this, but by the use of enemata, with a very slender diet, she continued convalescent, and on the eighth day from her confinement

was as well as ever she had been in the same time. The enemata which were exhibited every morning for several days brought away solid feces, but not in such large quantities as have sometimes been observed in parturient cases.

Salem, May 11*th*, 1831.