THE SURGICAL TREATMENT OF SO-CALLED PUERPERAL FEVER.¹

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THE two most important obstetrical questions at the present time are the treatment of puerperal eclampsia and the treatment of puerperal fever. In the first of these the obstetrician might obtain help from the physician and the chemist, and in the second the aid of the surgeon and the bacteriologist may be of service; and it is as a surgeon I venture to briefly discuss the treatment of puerperal fever, not placing my personal views on the subject before you in an absolute or dogmatic fashion, but simply as provisional, to be either rejected or elaborated and improved upon as time may show.

These are, I think, the indications for the surgical treatment of puerperal fever: 1. Remove the poison by a free curettage of the uterus and perineum if torn. 2. Counteract its effects by freely douching the uterine cavity with a germicide, and tamponading the uterus with iodoform gauze. 3. Keep the patient alive till the poison is eliminated by suitable food, stimulants, medicines, and hygienic surroundings. I have treated fourteen cases of puerperal fever on these lines; ten recovered, four died. One of these cases might have recovered if she had been curetted a second time, for you cannot be certain that you remove all the poison by curettage, and many cases require it a second or even a third time. I will not take up your time by giving you a minute history of these cases, but will give you the essential facts of one case which exemplifies the treatment I advocate.

Mrs. G. was attended by my friend Dr. Hubbersty in February, 1895. On the fourth day she had a rigor, her temperature went up to 104°, she had slight tympanites, slight tenderness over the uterus, profuse sweating, dry tongue, anxious expression, pulse 30, and very jerky, no vomiting, no delirium, and lay on her side. She was placed under chloroform, and her uterine cavity was freely curetted with a sharp curette; a slight rupture of the perineum was also curetted. Her uterus was douched with two quarts of corrosive sublimate solution, and was then tamponaded with iodoform gauze, and iodoform was freely sprinkled on the torn perineum. Two excellent nurses were employed to look after her and carry out Dr. Hubbersty's instructions. She was in a good house, with plenty of fresh air. She was fed principally on meat juice, and had a liberal supply of good champagne and some quinine. She improved rapidly. The tampon was removed in twenty-four hours. She was subsequently douched with corrosive sublimate every eight hours, and an iodoform pessary introduced into the uterus after each douching, Dr. Hubbersty doing all this himself. She kept well for a fortnight, when she again became very ill, and her temperature rose to 107.5°. She was again placed under chloroform, again freely curetted and tamponaded, after which the douching and iodoform pessaries were continued. To be brief, she recovered, having been curetted twice and douched 250 times. This was the worst case I have ever seen to recover, and was under treatment for eleven weeks, but I trust I have sufficiently detailed the treatment. At no time could we find intra-abdominal mischief.

But many cases while not going on to a true septicæmia and general infection, develop abdominal mischief, and here the surgeon comes in again. When there is evidence of this the abdomen should be opened and the cause removed. I have opened the abdomen in six cases where there were physical signs of abdominal mischief, and I give you the cases briefly, but I trust succinctly:

CASE I.—A primipara where labour was completed without any attendance. Dr. Norie was called in subsequently. She developed puerperal peritonitis. When I saw her five weeks subsequently her abdomen was enormously distended with fluid, her temperature was 105.5°, her pulse 140, and she was extremely hectic. I opened her abdomen and removed some 80 ounces of pus. She was washed out with boracic solution, drained, and made an excellent recovery.

CASE II.—Dr. Square's case; adhesive peritonitis; abdominal section; adhesions broken down; washed with boracic solution; drainage. Recovery.

CASE III.—Midwife's case; single pyosalpinx; removal of tube. Recovery.

CASE IV.—Dr. Beveridge's case; ruptured pyosalpinx; removal. Death.

CASE V.—Dr. Fenwick's case; on third day typical peritonitis; abdomen opened; 40 ounces of cloudy, blood-stained fluid removed; abdomen washed out with boracic solution; drained; uterus curetted, tamponaded with iodoform gauze, and subsequently douched for three weeks. Recovery.

CASE VI.—Dr. Jago's case; unruptured pyosalpinx; removed. Still under treatment.

Those briefly are the cases I have treated surgically: 14 by curettage and drainage (tampon of gauze) and douching; 10 recoveries, 4 deaths. Where abdominal section was required, 6 cases: 4 recoveries, 1 death, 1 still under treatment. All these cases were curetted as well. In former years, when I treated cases of puerperal fever by opium, antipyretics, iron, and other "sheet anchors," the deaths were many and the recoveries very few.

Dr. GRIFFITH thought that a very small number of cases of puerperal fever required surgical treatment, since by no means every case of pyrexia needed curettage. There was no doubt that, carefully performed in suitable cases, it was a useful and successful operation. It was, however, in the puerperal uterus at times impossible to carry it out fully owing to the severe hæmorrhage it produced, and there was great risk of perforation of the uterus. If the cases in which the pyrexia was due to some other cause than sepsis were removed, and those where the finger alone was sufficient, there were very few left for curettage.

Dr. LEITH NAPIER (London) thought these cases could be divided into two kinds, namely, those that got well with no treatment at all, and, secondly, those that got well with treatment of doubtful efficiency. One great objection to surgical intervention was that such cases occurred frequently in general practice, and not only in the hands of gynaecologists. If it were possible to treat them without surgical interference with as great efficiency, then he thought the simplest treatment was the best. He believed continuous uterine irrigation with an aseptic or antiseptic fluid to be of the greatest possible value. He quite agreed with Dr. Murphy as to curettage in a *post-partum* uterus. He had seen many cases in which it had been of the greatest possible value. One of Dr. Murphy's cases had had curettage and abdominal section performed at the same time, and he thought it doubtful which operation had produced the cure. The curette should always be employed before the question of abdominal section was considered at all, since the latter was a very serious and dangerous operation. In localised collections of pus abdominal section was the best treatment, but his experience of abdominal section for suppurative peritonitis had not been happy.

Mr. JOHN W. TAYLOR (Birmingham) said that successful results had been obtained by him in proportion to the localisation of the inflammation (and inflammatory products) within the abdomen, and that in acute puerperal peritonitis and septicæmia very little or nothing could be hoped for from abdominal section. Careful curetting was often of signal service in cases in which any morbid product might exist within the uterine cavity, and it was possible that this means of treatment was sometimes too sparingly employed.

Dr. DONALD (Manchester) said that a very limited number of cases was ever met with in which surgical procedures were suitable in puerperal fever. Abdominal section was only indicated in cases of localised collection of pus or in cases of pyosalpinx. Curettage at times actually did harm rather than good, and cases which required any surgical interference required careful selection.

Professor Lusk (New York) had seen a good deal of curettage of the uterus in such conditions as described by Dr. Murphy, and he could not help thinking that it was often a most mischievous procedure. It was usually followed by a rigor and a high temperature, and he thought that Dr. Murphy's figures merely showed that a certain number of patients survived the treatment. Many years ago, at the time when

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epidemics of puerperal fever were not uncommon in lying-in hospitals, in that to which he was attached the total mortality from all causes did not exceed 3 per cent., and no such procedures as advocated by Dr. Murphy were ever carried out. Nature had its own plan of cure, and the removal of the mucous membrane where a barrier had already been set up by the exudation of leucocytes often rendered abortive the attempts of operators to limit the absorption of the poison and to effect a cure. He thought the number of cases where localised collections of pus occurred was but small, and he had met with very few cases requiring surgical treatment.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

A CASE OF INTUSSUSCEPTION: DISCHARGE OF PORTION OF BOWEL; RECOVERY.

I WAS requested to visit a gentleman, aged 79, on a visit here, and found him suffering from great pain over the abdomen, with distension. I was informed he was often attacked in the same way, and suffered much from obstinate constipation. He felt that with a simple purge he would be well in the morning; on my visiting him next morning I learnt that there had been no relief of the bowels, no sickness, no flatus. The abdomen was now greatly distended and tympanitic, and on careful examination a distinct swelling could be felt in the left umbilical region. The temperature was 99°, the pulse 90, the tongue quite moist and clean. The exact nature of the case was somewhat obscure. On rectal examination fecal matter could be distinctly felt high up, and I decided to give a simple water and soap enema, which brought away almost during the operation a very hardened lump of dry fecal matter, but no flatus; nor did the swelling decrease. Under the circumstances my idea was to relieve pain by opiates and await further development of symptoms. The temperature, however, remained tolerably even, never rising above 100°, and only once reaching this. The pulse was never over 105°. The tongue remained quite moist and clean. Food was taken at stated intervals in small quantities. At the end of the fifth day I was convinced I had to deal with a somewhat unusual case of intussusception, but decided to proceed as before until further complications demanded other treatment. The abdomen had distended to an enormous extent, but there was little or no pain on pressure, except over the swelling on the left side. So the case proceeded day by day. A consultation was held with the family physician, but the treatment was unaltered. On the eve of the thirteenth day, while I was sitting by my patient's bedside watching him asleep, he suddenly awoke, complaining of great pain and desire to use the stool. He was assisted out of bed, and great was my delight to hear a copious evacuation of the bowels accompanied by flatus. His remark was, "He was never going to stop," certainly it sounded very much like it, for before he could again get back to bed the receptacle was all but full. During the night there was a second action almost as copious. I carefully examined the excreta, and amongst a large mass of mucus and blood was enabled to extract a sloughed mass of intestine, and measuring it as accurately as possible, made it out to be between 2 and 2½ inches. From that day he made a speedy and complete recovery, and left for the North of England at the end of six weeks.

Sidmouth.

BINGLEY PULLIN, M.R.C.S.

MEDIASTINAL FRICTION.

I HAVE a patient who has been under my care some eight years or so, and who is subject to attacks of dry pericarditis (mediastinitis). She generally has pain over the cardiac area, and when these attacks occur she experiences very severe angina pectoris. The percussion of the heart is always very painful, and on auscultation, if the patient takes a deep breath, there is usually heard friction over the midsternum, which is intensified during the above-mentioned attacks; friction is then heard towards the base of the heart and large vessels. There is apparently matting together of the structures in the anterior mediastinum, no doubt of a

tuberculous nature, as the patient has a bad family history, and at one time, according to Sir W. Gull, had slight affection of the right apex. This friction over the midsternum vanishes sometimes completely, but it was heard by Mr. Scott, of Bournemouth, before my knowing the patient, some ten years ago.

One day lately I found that if during auscultation I directed the patient to raise the left arm above the head, this friction is brought out very plainly, the same thing occurs on raising the right arm. I have not seen a description of this way of eliciting mediastinal friction anywhere, and hence venture to publish it if it is novel. It may be confirmed by others.

Puerto Oratava.

GEORGE V. PEREZ, M.B.Lond., etc.

CASE OF MORPHINE POISONING TREATED BY SOLUTION OF PERMANGANATE OF POTASH, WITH RECOVERY.¹

ABOUT eight o'clock on the evening of August 3rd, 1895, I was hurriedly called to see a patient who was reported to have been suddenly taken ill. On my arrival I found him in a semi-comatose condition, though still capable of being slightly roused. The skin was cold and clammy; the pupils contracted so as to be almost invisible. The pulse was rapid, soft, and compressible. The respirations were shallow, but not materially altered in number, and there was suppression of urine.

A bottle lay on the table, marked "Poison," but had no distinctive label; it contained a small quantity of nearly colourless liquid, which I afterwards ascertained to be a very strong solution of morphine. (He admitted to me after his recovery that he had taken the drug about an hour and a-half before I saw him, and the quantity taken would represent over 16 grs. of the sulphate.) When I saw him, however, there was no mistaking his symptoms. From the extreme condition in which I found him, and from his evidently having taken an excessive overdose of the drug, I felt that it would be useless to trust to belladonna; and, having ascertained that his stomach was practically empty, I determined to adopt the treatment recommended by Dr. William Moor, reported in the *BRITISH MEDICAL JOURNAL* of June 22nd, 1895, and accordingly, with considerable difficulty, got him to swallow 5 grains of permanganate of potash, dissolved in half a pint of water. I then had the man placed on his feet and supported between two attendants, who moved him gently about.

In about half an hour after swallowing the solution he vomited, and in a few minutes after I repeated the dose. He appeared a little more sensible after vomiting, but I had considerable difficulty in keeping him awake, and his pulse grew so faint that for some time I feared that all efforts would be useless. Hypodermic injections of strychnine, however, had a marvellous effect in strengthening the heart's action.

Three doses of permanganate solution (5 gr. in each) were administered in all; vomiting occurred in about half an hour after each dose, and this was followed by marked improvement. I remained with him until six o'clock next morning, when all immediate danger appeared to be over, and he subsequently made a rapid recovery.

This case illustrates the marvellous affinity which permanganate of potash has for morphine, even when it has been absorbed into the system as in this case. Morphine is well known to be largely excreted by the mucous membranes of the stomach, and the administration of the permanganate unquestionably accelerates its elimination by that organ, the alkaloid being rapidly taken up and oxidised by the permanganate.

Another important fact is elicited from this case, that is, that though the morphine be absorbed into the system, it is not absolutely necessary to administer the antidote hypodermically. One grain of permanganate oxidises one grain of morphine, and when a large dose of the poison has been taken as in the above case, it would be obviously unsafe to administer the requisite amount of the antidote hypodermically. In addition, permanganate of potash produces very unpleasant symptoms when administered subcutaneously, as well as causing a good deal of local irritation.

¹ Communicated to the Cork Medical and Surgical Association, November 27th, 1895.