in the proximal half and the adjoining part of the caecum. In three instances secondary growths were present in the neighbouring lymphatic glands.

The patients varied in age from 6 to 55 years. In the small number of cases recorded the male sex predominates, 6 being males and 3 females.

The symptoms calling for treatment were usually those of recurrent appendicitis—namely, attacks of pain in the appendix region. This was the case in six instances, and in one operation was performed during an acute attack. Carwardine's patient suffered from colic and diarrhoea with loss of flesh for five months, and my own patient was operated on for acute intestinal obstruction set up by an intussusception which apparently originated in a partial invagination of the appendix into the caecum, similar to that which was present in Carwardine's case. On one occasion only was the condition discovered accidentally at a *post-mortem* examination. A definite mass was felt before operation in five cases.

The extent of operation deemed necessary was much greater than in primary carcinoma; simple appendicectomy was performed on two occasions only, the appendix and part of the caecum were removed twice, the whole of the caecum twice, and the ileo-caecal region and ascending colon twice.

The results of operation also go to show that the condition is more malignant than primary carcinoma. Five cases were reported free from recurrence a few weeks, five months, five months, two and a half years, and four years after operation. Two cases were followed by recurrence six weeks and two years after operation, and one patient died in a few hours of operative shock.

That primary sarcoma of the appendix is a more truly malignant tumour than primary carcinoma is borne out by the greater extent of the original growth, the greater frequency of secondary deposits, the more extensive operation required, and the higher percentage of recurrence.

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THE IMPORTANCE OF DRAINAGE IN SEPTIC CONDITIONS OF THE UTERUS.

BY

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DR. A. W. RUSSELL, in his presidential address to the Glasgow Obstetrical and Gynaecological Society, stated on the authority of the Registrar-General that in the year 1908 119 deaths from puerperal fever occurred in Glasgow, and that the deaths in Scotland from this cause during the ten years 1899-1908 numbered nearly 3,000, being in fact 2,612. Dr. Russell naturally says, "What a toll to pay to defective method!"

Dr. Robert Jardine, in his excellent work on *Clinical Obstetrics*, the third edition of which was issued last year, furnishes statistics of thirty years' work in the Glasgow Maternity Hospital. In the outdoor department during the thirty years 1869-1898 there were 41,111 cases, with a total mortality of 188 patients, the deaths during the three decades being respectively 60, 72, and 56—the last figure giving a mortality of 1 in 218 cases. The deaths ascribed to septicaemia were 46, being for the three decades 18, 14, and 14—the last figure giving a ratio of 1 in 894 patients.

During the thirty years mentioned, there were 10,179 indoor patients, with a total mortality of 213, or 1 in 48. There were 95 deaths attributed to septicaemia, being for the respective decades 20, 31, and 44—the last figure giving a proportion of 1 in 107; that is to say, the proportion of deaths from septicaemia in the indoor department was eight times greater than that in the outdoor department of the hospital.

The difficult and complicated cases are, of course, removed to the hospital, but these figures prove the seriousness of septicaemia in the puerperal state, and that our control of it is still very inadequate.

I have recently been looking up Smellie's *Midwifery*, annotated for the Sydenham Society by Dr. A. H. McLintock, issued in 1876. Dr. Smellie may be said to be the father of scientific midwifery, and it was his proud boast that he studied Nature closely, and imitated her methods. "In a word," he says, "I diligently attended to the course and operations of Nature which occurred in my practice, regulating and improving myself by that infallible standard." Smellie was born in or near Lanark in 1697, and practised there, finally removing to London, where he practised and taught the science and art of midwifery for many years. Smellie stated that of 1,000 women left entirely to Nature, only one would die in childbirth. The outdoor department of the Maternity, we have seen, gave a mortality of 1 in 894 patients, not far away from Smellie's standard. It is to be presumed that in the outdoor work all very difficult cases were removed to the hospital and go to swell the mortality bill of the indoor department.

Smellie knew nothing about germs, and there is not much reference to puerperal fever in his work. Cases are undoubtedly cited of that nature, although not known by that name. Smellie says: "Most of the complaints incident to women after delivery proceed either from the obstruction of the lochia in the uterus or of the milk in the breasts, occasioned by anything that will produce a fever." Smellie was alive to the danger of the lochial discharge ceasing too soon, and its connexion with "restlessness, fever, a full, hard pulse, pains in the head and back, nausea, and difficulty in breathing."

In 1795, according to Dr. Jardine, Dr. Alexander Gordon, of Aberdeen, published his views regarding the contagious nature of puerperal fever, maintaining that there "was a specific contagion or infection altogether unconnected with a noxious condition of the atmosphere." About 1843 Oliver Wendell Holmes recognized the same fact, and published minute instructions for the guidance of the physician by way of prevention. In 1847 Semmelweis published his views, fully corroborating previous observations.

Lister's observations and work in the Glasgow Royal Infirmary from 1861 and onwards completely revolutionized our whole conception of diseases, and threw an immense flood of light on sepsis, not only in general surgery, but also on obstetrics. Diseases were not generated *de novo* in the human body, but came from without, being imported in various ways, by the air we breathe, the water we drink, or the food we consume, or by opening up channels to infection by our hands, instruments, or clothing.

Regarding the various causes which are held to produce general puerperal septicaemia, I may mention the following: Erysipelas and scarlet fever are notorious among the zymotic diseases, and as a rule, if the virus be introduced into the generative tract, are fatal. Sewer gas escaping into the lying-in chamber is apt to bring on a fever resembling puerperal septicaemia. Dr. William Playfair, in his work on *Midwifery*, cites several cases to support this view, and showed that wide oscillations of temperature occurred. We have all read or heard of doctors who had to abandon the practice of midwifery for a time, to get rid of the infection they were carrying about with them. This fact has never been contradicted, so far as I know; and those who come much in contact with septic cases, either in hospital or private work, other things being equal, are much more liable to convey infection to patients than others not so circumstanced. In this respect the family practitioner has the advantage of the specialist. Excluding infectious diseases proper, we narrow down the causes of puerperal septicaemia to the direct conveyance of septic matter to some part of the genital organs by the nurse or

physician, or contaminated cloths coming in contact with the genital canal. The more interference with labour the greater the risk. Lacerations of the os, vagina, or perineum all cause wounds ready to be infected by any septic material. As there are no pyogenic organisms in the vagina, any found in the generative tract must have been introduced from without. This can be done very easily, if the examining hand or any instruments employed during the conduct of the labour be not aseptic.

In hospital practice elaborate precautions are taken to ensure aseptic labour. In private practice there have been many successful accoucheurs who have relied on soap and plenty of boiling water. Lawson Tait, I believe, pinned his faith to those two common commodities. My own practice has been to wash the hands and forearms thoroughly with hot water and soap, and to soak the examining hand in 1 in 1,000 solution of mercury perchloride for a minute or so. I cut off a small bit of ordinary soap and throw it into the bowl containing the perchloride solution. I use that bit of soap for anointing the finger, always filling the seam of the nail with a little of it. I have no faith in such things as vaseline.

We are all familiar with the symptoms of puerperal septicaemia—how on the third day usually the temperature rises, the pulse quickens, the discharge becomes less, the expression of the patient alters, and so on. Then may follow signs of metritis and perimetritis; the womb become soft and flaccid and tender; the bowels inflated; thirst and restlessness, and a tendency to death from exhaustion. If it be a case of pyaemia, there are the rigors and sweatings and the complications in the joints and various organs, such as the heart and lungs, spleen and kidneys. The important question then arises, What are we to do? If we douch and put the patient on quinine, I think we are starting in the dark. A hot douche no doubt cleanses the vagina, and excites uterine contractions, and if the case be one of sapraemia due to decomposing clots, or fragments of the placenta or membranes left behind in the uterus, douching may be successful by exciting the uterus to expel these noxious decomposing materials. Quinine is a powerful uterine tonic, and with ergot is most useful in exciting and maintaining good uterine contractions, and so indirectly is of great use in these cases. But if the case is one of septic poisoning due to pyogenic organisms, something more than casual douching is required.

The first thing, and I believe the thing that is seldom done, is to make a thorough inspection of the parts and see where the focus of infection lies. If the perineum is torn and the parts sloughy, that will call for ordinary surgical treatment, frequent cleansing of the parts, the use of iodoform or other antiseptic, and the insertion of a gauze drain to allow free exit for the discharges. When the patient is lying on her back it is astonishing how discharges get pent up, not only in lacerations—especially on the posterior vaginal wall—but likewise in the uterus. I

Tube with rubber attachment for draining a septic post-partum uterus.

think it best in every case to pass a speculum. I prefer Nott's full-sized speculum. A flood of light is by this means thrown on the vagina and the os. If the cervix has been lacerated and is in a sloughy state, my practice has been to swab it thoroughly with pure carbolic acid, a proceeding attended by very little pain. I feel certain the disease, if caught early in this way, receives a permanent check. If the speculum shows that pus is issuing from the uterine cavity, then that cavity has in reality become an abscess cavity, and must be treated accordingly by efficient drainage. My contention is that that cannot be done, unless a drainage tube be inserted into the uterus and kept there. It is now eleven years since I adopted this practice, under the following circumstances: A medical friend asked me to attend a somewhat nervous and delicate lady in her first accouchement. Forceps were used, and chloroform administered by my friend. I think he pushed the chloroform too deeply, as he had to put a gag into her

mouth and pull out her tongue. The after-birth was delivered normally. Very shortly afterwards the patient became suddenly blanched, and on throwing down the bed-clothes I was mortified to find a large pool of blood. There was not a moment to lose—no time for douching. I pushed my hand into the uterus, but could get no response. So I called for napkins, and plugged the uterus. That stopped the bleeding. These napkins were anything but sterile; so I had to face the danger of puerperal septicaemia. I removed the plugs in a few hours, and inserted a curved perforated glass tube into the uterus. To the glass tube I attached a piece of stout rubber tubing, cutting it short at the vulva. By this arrangement we were able to irrigate the uterus five or six times a day, by means of a douche can. The tube was kept in the uterus for three weeks. The patient made a good recovery, being only moderately feverish for a week or two. The pus that formed got free vent, and was never allowed to accumulate in the uterus.

Some years ago I was asked by a medical friend to see a patient who had had a normal labour, but became feverish and ill several days after delivery. Signs of perimetritis were present; there was pain and tenderness in the lower part of the abdomen, and the abdomen was moderately tympanitic. A speculum was passed, and the os was found to be inflamed, ragged, and coated with pus. We thoroughly swabbed it with pure carbolic acid, and put the patient on opium. The symptoms soon subsided, and she made a good recovery.

In the case of a lady confined of her first child forceps were used, and the after-birth was removed by the hand, which was shielded by a rubber glove. All precautions were taken to ensure an aseptic labour. Three days after delivery the patient's temperature rose, the pulse became quick. A few douches were given during the next few days, and she was put on quinine, which held the temperature in check. At the end of a week bilious vomiting set in, the patient felt very ill, and suffered great pain in the lower part of the abdomen, which was decidedly tympanitic and very tender in the hypogastric region. There was dullness to percussion on the flanks of the uterus. In a word pelvic peritonitis was present. A speculum was passed, and pus was seen to be exuding from the womb, the cervix of which was deeply inflamed. I swabbed the uterus thoroughly out with pure carbolic acid, and inserted a glass drainage tube. The patient was then put on Niemeyer's combination of opium $\frac{1}{4}$ grain, digitalis $\frac{1}{4}$ grain, and quinine 1 grain. This I believe to be a life-saving combination in critical cases of severe illnesses where death threatens from a high temperature and cardiac failure. Digitalis slows the pulse; I have known it bring it down from over 100 to 50 in the dose mentioned. It was given in pill form, one pill to be given every three hours. Another great advantage of this combination is that there is a tendency to vomiting in peritonitis, and this pill of Niemeyer's is retained when mixtures would nauseate and aggravate the sickness. The glass drainage tube in the uterus acted well. Within forty-eight hours at least half a pint of purulent fluid was drained away. The patient gradually recovered.

A QUARTERLY court of the directors of the Society for Relief of Widows and Orphans of Medical Men was held on Wednesday, July 12th, when Dr. Rigden, vice-president, took the chair, in the absence of the president. Three gentlemen were elected members of the society, and the death of a member was reported. The sum of £1,371 was voted for the payment of the half-yearly grants to the annuitants of the charity—namely, forty-eight widows and sixteen orphans. Relief is only granted to the widows and orphans of deceased members, and since the last court five letters had been received from widows of medical men asking for relief, but this had to be refused, as their husbands had not been members of the society. The invested funds of the society now amount to £101,600. Membership is open to any registered medical practitioner who at the time of his election is resident within a 20-mile radius of Charing Cross. The annual subscription is two guineas; special rates for life membership, varying with the age of the applicant. The next election of members will take place on October 11th, and application forms must be sent to the secretary on or before September 20th. These may be obtained, together with further particulars, on application to the Secretary at the offices of the society, 11, Chandos Street, Cavendish Square, W.