

Mr. Dacre concurred. Chloroform was administered on January 3rd. A vertical incision 2 inches long was made just to the left of the mid-line over the prominent part of the swelling. On opening the peritoneum it was found that the parietal and visceral layers were slightly adherent below and partly to the right of the incision. These adhesions were left undisturbed. An exploring needle was then introduced into the liver substance, and when about half an inch from the surface it entered a cavity, from which some thin brownish fluid was withdrawn. By means of a continuous suture of fine silk the parietal peritoneum was sewn to the surface of the liver so as to surround an area of about 1 inch in diameter, the exploring needle occupying the centre. Sinus forceps were then passed in through the puncture as the exploring needle was withdrawn, and on opening the blades so as to tear through the liver substance some ounces of a thin brownish fluid escaped, followed by a thick flocculent yellowish (bile-stained) purulent fluid. Altogether about 5 or 6 ounces of fluid escaped, the cavity appearing to be about the size of a cricket ball. A rubber drainage tube $\frac{3}{4}$ inches long and one-third of an inch in diameter, was then inserted, and the wound dressed with boric lint and Gangee tissue. After evacuation the swelling in the epigastrium diminished to about one-half of its former size, the drainage tube emerging from the abdominal wall about 2 inches below the ensiform cartilage.

An agar culture of the fluid was taken at the time of operation, and was found to contain actively motile typhoid bacilli (*vide infra*).

At first the fluid which escaped in considerable quantity from the tube was of a brownish colour, and mixed with purulent flocculi and mucus. After about ten days it was watery, bright yellow or greenish from bile, with a slight amount of mucus and no visible pus. About three weeks after the operation, however, this was interrupted by a sudden discharge of pus, which lasted three days, but by February 3rd the wound was practically healed except for a few threads of the silk ligature, which were seen coming through the abdominal wall.

The temperature after operation was subnormal, and the child made a steady and uneventful recovery, so that in about two months from the time of operation she was fat and well.

Beyond expressing a preference for hepatotomy in one stage, I do not propose to enter upon the details of its well known methods of procedure, but it is desirable to state that the fortunate position of the adhesions, found in this case between the liver and the parietes, made me decide to operate in the manner above described, rather than to make a longer incision and break down these most useful adhesions by packing the wound with sponges in the ordinary way.

The result of the case is most encouraging in more ways than one. Here was a patient suffering from repeated rigors, with distinct manifestations of pyæmic infection. The first metastatic focus, however, was in an accessible situation, and operation prevented the spread of infection, for it cannot be doubted that, had the child escaped the danger of the bursting of the hepatic abscess into the general peritoneal cavity, death would probably have occurred from the formation of secondary infective foci.

The bacteriological examination of the fluid removed at the time of operation was kindly undertaken by Dr. Symes. Direct microscopic examination showed short bacilli with rounded ends. Agar stroke and plate cultures showed a few colonies of staphylococcus pyogenes aureus, and many colonies of short bacilli with rounded ends. The bacilli grew in broth, causing cloudiness of the medium, and were actively motile. There was no formation of indol, curdling of milk, or formation of gas in gelatine, but there was a characteristic Widal's reaction with typhoid serum, 1 in 20. There can be no doubt, therefore, that this organism was the bacillus typhosus of Eberth-Gaffky.

The only other cases which I can find of hepatic abscess in which the presence of the typhoid bacillus was demonstrated is that of Lannois,² to which reference has already been made, but in his case gelatine was liquefied by the organism. This, however, he attributes to an impure culture.

That the relief of tension may diminish inflammation by restoring the vitality of tissues which have been subjected to the pressure of inflammatory products is a matter of common knowledge; but, apart from this, it appears to me that the mere relief of tension has a marked influence on the destruction of some of the various organisms capable of producing suppuration. In the case narrated above the abscess was rapidly increasing before operation, and a culture of the fluid taken at the time of operation was found to be swarming with typhoid bacilli; and yet three days after operation—before any antiseptic had been applied to the abscess cavity—a second culture revealed only one colony of the typhoid bacillus. This rapid diminution in the number of the bacilli cannot be attributed to the antiseptic action of the bile itself, for the fluid removed at the time of operation was also bile-stained.

The same deterring influence on the growth of the bacillus coli communis by the relief of tension is repeatedly seen in

cases of suppurative appendicitis. We may not know why these organisms multiply so rapidly when tension is great, but the indication for treatment by surgical means is obvious.

That relief of tension should prevent the absorption of the deleterious products of bacterial growth is intelligible enough, but why does that same relief of tension check the growth of the organisms themselves? Is it due to the replacement of stagnant fluid by a more or less actively-moving secretion of fresh fluid, and that this constant exudative stream prevents the development of the organisms? If this is so, the question of tension is only of secondary importance, although relief of tension is necessary before a healthy secretion of fluid can take place.

Granting, however, this explanation of the fact, it raises the question as to whether we are right in so frequently treating intraperitoneal suppuration by means of antiseptic flushing, which may do harm in other ways. Would it not be wiser to content ourselves with the relief of tension only, and thus leave the powerful phagocytic and exudative capabilities of the peritoneum to fight their own battles unimpaird by the endothelium-destroying influence of "flushing the abdomen"? Time and further experience will show.

I have been unable to find a record of any other case of hepatic abscess in enteric fever successfully treated by operation, but the above illustration is full of hope for those rare occasions on which this complication is likely to arise.

REFERENCES.

¹ *Rev. de Méd.*, November, 1895; quoted in *Med. Rec.*, 1896, xlix, 924. ² The same paper as quoted in *Gould's Yearbook*, 1897, gives a different frequency of occurrence. ³ *Loc. cit.* ⁴ *Berl. klin. Woch.*, 1890, No. 9; quoted in *Waring's Diseases of the Liver*, 1897, p. 81. ⁵ *Berl. klin. Woch.*, No. 51; quoted in *Med. Times and Gazette*, 1883, i, 16. ⁶ *Waring's Diseases of the Liver*, 1897, p. 81. ⁷ *Trans. of the Assoc. of Amer. Phys.*, 1897, xii, 382. ⁸ *Loc. cit.*

A CASE OF OPERATION FOR PERFORATED
GASTRIC ULCER.*

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History.—The patient was a widow, aged 35 years. Twenty years ago she had suffered for two years from persistent pain in the gastric region, which was aggravated by taking food. This disappeared, but for eighteen years she had been subject to attacks of pain of a neuralgic character, which occupied various situations—head, face, side, etc.—came on at irregular intervals, and were relieved by quinine. About the beginning of July, 1897, an attack of apparently the usual character came on. It was, however, noticed by Dr. O'Hara that the paroxysms had a distinct relation to the times of taking food, occurring about three hours after meals. Vomiting after food took place twice. Under dietetic treatment the symptoms were becoming less acute, when, on July 20th, 1897, she took a small quantity of porridge and milk for supper at 9 p.m., and at about 10.30 retired to bed, and fell asleep. Before 11 she was awakened by a sharp pain in the abdomen, which she recognised as more severe than any she had previously felt. It increased in intensity when she got out of bed. Dr. O'Hara saw her at 1.30 a.m. She had then great pain on the left of the epigastric region, and had vomited twice since the seizure. There was some rigidity of the abdominal muscles, and no alteration in normal liver dullness. The pulse was 80, and the temperature normal. She got one-sixth of a grain of morphine hypodermically, and $\frac{3}{4}$ iv of brandy by the rectum. At 1.30 p.m. on July 21st she was complaining of some pain in the epigastric region, and of inability to lie down, preferring a half-sitting posture in bed. Her pulse was 104, her temperature 101°, and her abdomen was considerably distended and tympanitic. As the pulse and temperature had been getting worse hour by hour, it was decided to operate at once.

OPERATION.

Accordingly chloroform was given by Dr. Mullan, and I proceeded to open the abdomen, Drs. O'Hara and Currie assisting. A median incision in the epigastrium allowed

* Read before the Surgical Section of the Royal Academy of Medicine in Ireland.

some gas to escape, and showed the front of the stomach to be covered by milky fluid, which welled out of the wound, and was sponged away to the amount of about 2 ounces. Many patches of lymph were seen towards the upper border of the stomach and across the front of it towards the left. The thickness of the abdominal walls rendered a longer incision necessary, and it was accordingly extended from $1\frac{1}{2}$ inch below the ensiform process to 1 inch below the navel. Careful inspection then detected greenish fluid welling out of the stomach near the lesser curvature, and about 1 inch from the pylorus, the perforation being as large as a three-penny piece. Below and on the left the aperture was bounded by apparently normal stomach wall, and above and on the right by a mass of cicatricial tissue as thick as the forefinger. The opening was plugged with gauze, and the stomach area was packed round with towels which had been recently boiled. The edges of the opening were then trimmed with scissors, the cicatricial tissue being freely removed, except above, where cutting it away caused free bleeding. The raw edges were brought together by a continuous suture of fine silk, including the whole thickness of the stomach wall. Over this about a dozen interrupted Lembert sutures were placed, and over all a piece of small omentum was tacked down by a continuous suture. The abdomen was cleaned by gauze sponges. A gauze drain was inserted in the upper angle of the wound, reaching well over towards the spleen, where the gastric contents had spread most freely. The lower three-fourths of the wound was closed by interrupted silkworm-gut sutures. Owing to the distension great difficulty was experienced in getting the abdominal walls to meet over the bowels. Iodoform dressings were applied.

AFTER-TREATMENT.

A copious enema given after operation proved very effective in relieving thirst. Nutrition was kept up for five days by enemata, then feeding by mouth was cautiously commenced, water being given first, then animal extracts, and then milk. The gauze drain was removed on the fifth day and the stitches on the fourteenth day. The track in which the gauze drain lay healed by granulations, the rest of the wound by immediate union. On the third day the pulse slowed down remarkably, and remained for twelve hours under sixty in the minute.

REMARKS.

The abdomen was not flushed out because we thought the stomach contents had not spread far beyond the gastric region, and we feared that flushing might only disseminate them still further, therefore sponging and drainage were relied on. Previous to closing the abdomen the cavity of the small sac was inspected through an opening torn in the omentum near the lower border of the stomach. It was found to be uncontaminated, showing that the posterior wall of the stomach was intact. The progress after operation was in every way excellent. Both pulse and temperature at once fell, and remained down throughout the period of convalescence. The patient is now well, and has been free from pain since the operation. Much credit is due to Dr. O'Hara for his promptness in recognising the nature of the illness, and in at once advising operation.

KELOID (ALIBERT) AND INTRACTABLE PATCHES OF CHRONIC INFLAMMATION OF THE SKIN TREATED BY SCARIFICATION.

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As cases of true keloid are so seldom cured by operation, I take the opportunity of reporting a case apparently successfully treated by myself.

M. O., aged 46, attended my skin clinic at St. Vincent's Hospital, Melbourne, two and a-half years ago. He was then suffering from a typical keloid, about 3 inches in length, with claw-like processes extending from either side of it. The growth was situated in the long axis, and on the dorsal

surface of the right forearm. He complained of severe pain caused by the growth, which prevented him from carrying on his usual occupation. I twice freely excised the growth, but it returned quickly after each operation. I then exhibited the case at a meeting of the Victoria Branch of the British Medical Association, but operation was not advised. However, as the man still complained so bitterly of the constant worrying pain caused by the tumour, I decided to try some new mode of attack.

The operation performed was as follows: With a five-bladed scarifier, the blades being $\frac{1}{32}$ inch apart, I "mince-meated" the tumour and adjacent skin by making longitudinal and cross incisions into it, the network of scar tissue now presenting shows that the surface of the skin was divided into 400 sections to the square inch. After thus "mince-meating" the blood vessels in the growth and adjacent skin I encouraged bleeding by hot boracic fomentations, and then (after dusting the part with iodoform and dressing with zinc-glyco-gelatine) applied continuous pressure by a piece of solid india-rubber tubing, 4 inches in length and 3 inches in diameter, over the situation of the operation. The india-rubber pad was bound fairly tight to the arm by strips of Mead's plaster, the strips of plaster not quite meeting upon the under surface of the arm; by this means adequate pressure was obtained without interfering with even the venous circulation. After the first two dressings, at intervals of two days, the zinc-glyco-gelatine dressing was not continued. The application of pressure by this method was kept up for several months, the part beneath presenting the appearance of a thin scar tissue the whole time. It is now twelve months since the operation, and the condition of the part still remains the same, the man having been entirely free from pain or discomfort during the whole time, whereas after the two occasions upon which I removed the growth by excision, the pain was complained of, and the growth reappeared very quickly after the healing of the wound.

I have practised this operation of mince-meating the blood vessels, followed by two to three days' application of pressure, very successfully in the treatment of the following skin affections: Chronic patches of eczema; lupus erythematosus (oedematous variety), the scarifying being done very superficially; chronic patches of non-apparent catarrhal inflammation of the skin, with marked irritation as left after a general eczema; patches of chronic traumatic dermatitis, and intractable patches of chronic lichen planus.

The following case will illustrate the method of treatment and success obtained by it:

M. G., aged 36, states that 13 years ago he had an acute attack of eczema, more or less general, for which he was treated successfully, with the exception of two patches upon the inner side of the left leg. The irritation was so marked in these patches that he had frequently sought treatment for them, but without receiving any permanent relief. Internally he had been treated with arsenic, potassium iodide and other drugs; externally he had used numerous ointments, pastes, nitrate of silver applications, chrysarobin, traumaticin, picric acid, also salicylic creosote, plaster mull, zinc-glyco-gelatine, and the method of protection by Mead's plaster. There was one patch about 2 inches in diameter upon the inner side and a little below the left knee-joint, and another patch about 5 inches in length by 3 inches in breadth upon the inner side of the left thigh. The surfaces of these patches were slightly reddened with scant papery scales, the marking of the skin exaggerated, and when the skin was pinched up between the fingers a thickened leathery condition of it was very marked. Pruritus was the urgent symptom which caused him continually to seek treatment. I applied strong salicylic and creosote plaster mull under bandage for 24 hours, then removed the softened epidermis and applied a strong solution of cocaine. I then operated with the scarifier previously described, making several longitudinal incisions parallel to one another, and then cross incisions in a like manner. I encouraged bleeding with hot boracic fomentations, rubbed in iodoform, dressed with zinc-glyco-gelatine, and applied pressure as in the case of keloid. After three days' treatment by this means the pressure and dressings were discontinued. The patient stated that he received immediate relief by this treatment, but three months afterwards I had occasion to operate again upon a part of the larger patch, which had evidently escaped the true application of pressure.

I consider the blades on the instrument used for these operations should be at least one-sixteenth of an inch apart, otherwise pieces of the skin are torn away when making the cross incisions.

THE CANADIAN MEDICAL ASSOCIATION.—The Canadian Medical Association will hold its thirty-first annual meeting in Laval University, Quebec, on August 17th, 18th, and 19th. The Association has a membership of between 600 and 700. The President is Dr. J. M. Beausoleil.