will come out less readily, and this end will probably be more injected. As they continue to extrude, these differences will be more marked, and we will be able satisfactorily to decide that one end of the coil is nearest the cause of the obstruction. We follow this end wherever it leads; it will certainly lead us to our goal. I have three times followed this course, and have been charmed with its simplicity and efficiency.

Turning to the extruded coils of bowel, the bulk that they assume may look somewhat alarming. If the distention be not very great, you may try to return them. Spread the hands over the warm antiseptic covering, gather the bowels together, and, by steady gentle equable pressure, send their contents into the bowels that lie inside the abdomen. When they are nearly emptied, and occupy about one-fourth of their previous bulk, they may be slipped through the wound, while an assistant, with finger hooked in at each extremity, pulls the opening forwards. The abdominal wall is, so to speak, pulled up over the bowels. A flat sponge is now laid over them to protect them and keep them in position while the wound is stitched up.

But it is by no means certain that we are always right in thus closing up an abdominal wound over distended bowels. In fact, I believe that, in doing so, we are nearly always wrong. I believe that this distention with fluid and gas is in itself a serious factor in the malady. It certainly acts as an obstruction. I place before you these coils of intestine, with the mesentery attached, just removed from a dead body. They are filled to distention with fluid, and confined within the walls of this dish. You notice that the gut forms acute flexures, and that, at each of these, the mesenteric side of the bowel is pushed in, and acts as a sort of valve, blocking the calibre of the gut. As with any other tube, if you bend the bowel acutely enough, you will block its passage. Inside the abdominal cavity, where the confinement is greater, the flexures are more numerous and more acute than those on the table, and you may easily satisfy yourself by experiment that the passage of its contents is even more difficult. Practically, this fact explains why we are so often disappointed with the effect of tapping the bowel to permit the escape of gas or fluid. We empty it down to the first or second flexure, and no further.

Such distention also has an injurious effect on the bowels themselves. An intestine that has been overdistended for hours or perhaps days, and that is probably partly paralysed by opium, we should expect to contract on its contents no more than a dilated bladder under the same circumstances. If it cannot pass its contents along, the obstruction is to all intents and purposes unrelieved. We know that such increase of pressure inside the abdomen is, partly from its physical effects on the diaphragm, and partly, no doubt, through injury to the sympathetic ganglia, a cause of serious illness. When added to the effects of intestinal obstruction, its gravity is increased tenfold.

Now it is a matter of constant experience that free vomiting greatly relieves the patient. I am one of those who do not lightly regard the experiences of our forefathers; and I cannot believe that the very general esteem in which, from the days of Hippocrates and Praxagoras, they held the use of emetics in obstruction, was utterly misplaced. And quite recently we have had recommended strongly by Kussmaul, the removal of intestinal gases and fluids in these cases by the use of the stomach-pump. Relief is always claimed for this procedure; and, in not a few cases, positive cure.

I certainly consider the removal of this fluid and gas from the bowels, after relief of the constriction, as the most important detail in treatment. If it is to be done it must be done rapidly, for no time must be wasted in these operations. Tapping will not do, for the flow through such a trocar as we should dare to push through the intestinal wall, would be far too slow. We must incise the bowel. The blade of an ordinary scalpel, making a wound about one-third of an inch in length, is pushed through the bowel transversely, at the point furthest removed from the mesentery; and, while you hold the opening, removed as far as possible from the wound, over a receiver, an assistant presses the sides of the abdomen, and squeezes out the intestinal contents. At first, probably, there will be a rush of gas, and then fluid will follow, watery or fecal, as the case may be. When the abdominal walls are flaccid and the intestines are nearly emptied, we may stitch up the wound in the bowel, return it, and close the abdomen.

You have just seen this proceeding carried out in one case. The patient was in about as bad a condition as one ever sees upon an operating table. His pulse could scarcely be felt, and certainly could not be counted. His intestines were everywhere of a bright rosy red, covered in many places with patches of yellow lymph, and everywhere fully distended. Semi-purulent fluid flowed from the abdomen when the incision was made, and a good deal more was mopped out. The constriction, a mesenteric band, was discovered in the way

described, and easily divided. The bowel was incised, and through the opening, while the abdomen was being kneaded, large quantities of gas and fluid escaped. A continuous suture of fine catgut accurately closed this opening; the bowel was easily returned; the abdominal cavity was mopped out, and the wound sutured in flaccid abdominal walls. You have seen the case recover with no more trouble than any other abdominal section; with less trouble certainly than most cases of herniotomy. One example may be more impressive than much advice. I am sure you will not soon forget the lessons which this case has taught us.

In conclusion, I venture to submit to you these rules, for your guidance, in opening the abdomen for the relief of acute intestinal obstruction.

1. Make the incision in the middle line below the umbilicus.
2. Fix upon the most dilated or the most congested part of the bowel that lies near the surface, and follow it with the fingers, as a guide to the seat of obstruction.
3. If this fail, insert the hand, and carry it successively to the cæcum, the umbilicus, and the promontory of the sacrum.
4. If this again fail, draw the intestine out of the wound, carefully covering it, until increase of distention on congestion, or both in one of the coils, gives an indication that the stricture lies near.
5. If there be considerable distention of the intestines, evacuate their contents by incision, and suture the wound. Never consider an operation for intestinal obstruction inside the abdomen finished, until the bowels are relieved from overdistention.
6. Be expeditious, for such cases suffer seriously from shock. The whole operation ought to be concluded in half an hour.

REMARKS

ON

EXCISION OF BOTH BREASTS AT THE SAME TIME.

By JONATHAN HUTCHINSON, F.R.S.,

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THANKS to antiseptic surgery, the removal of the breast has come to be such a slight affair, that we now without hesitation resort to it in many cases in which formerly we should have felt bound either to wait or even to decline it. The doctrine of the pre-cancerous stage of cancer has also spread, and had its influence. We have left behind the futile logomachy as to whether cancer is a constitutional or a local disease; and, whilst not denying the existence of family and individual proclivities, we now recognise clearly that, for practical purposes, it is, in nineteen cases out of twenty, local up to a certain stage. Hence we are zealous for early operations, and no longer delay until the tumour, by its size, its hardness, or even its gland-complications, has taken on features which are not to be mistaken.

Problems of diagnosis present themselves to us which our forefathers would simply have shirked by waiting. We dare not do so, for we know that, whilst we are delaying in order to feel sure, the patient's sole chance of permanent recovery, or even of prolonged interval of immunity, is steadily vanishing. Thus we deliberately prefer to run some risk of operating needlessly where certainty is unattainable, rather than encounter the far greater evil of delay.

I make the above remarks as introductory to the consideration of the question, as to whether there are any cases in which it may be desirable to remove both breasts at once. At first sight, it may seem that, when cancer is symmetrical, the proof of constitutional tendency is so strong, or even the probability of other growths being present so great, that it is not worth while to operate. Many cases have occurred in which, after good recovery from one operation and no recurrence on that side, the surgeon has felt justified, at a subsequent period, in removing the other gland on account of an independent growth in it. The removal of both at once has, I believe, been but very rarely done, and is as yet, if I may judge by the remarks of some of my friends, looked on with disfavour by some of our best surgeons. If I mistake not, however, the time will come when, under the combined influence of the arguments to which I have just adverted, it will become a well esteemed procedure. The circumstances under which it is desirable will probably be chiefly those in which there is certainty of malignant growth in one breast and suspicion of it in the

other, or in which, with a bad family history, there is strong suspicion as regards both, without certainty in either. It is clear that the surgeon can, during the operation, always make himself fairly certain as regards one. He can cut across the induration in the breast first removed, and inspect it, before proceeding with the other. There are, however, cases in which the surgeon cannot form a positive opinion until the microscope is used. All who have had much to do with breast-cases will, I think, admit that there are many cases in which the diagnosis is to the last a doubtful matter. It is only those who wait who never make mistakes. All of experience will also, I expect, be willing to admit that, even after diagnosis has been made certain, prognosis remains difficult, and that sometimes cases which have seemed most unhelpful prove the best.

I have seen a certain number of cases of cancer in both breasts, but usually at a stage in which operation seemed out of the question. In two or three, the propriety of a double operation has been discussed, but finally negatived. I have never actually resorted to it until the other day, in the case which I am about to record.

Miss G., a lady aged 46, was sent to me by Mr. Keele of Highbury, in April. She was of spare habit, but in good health, and her history was that three aunts had died of cancer. She came on account of a lump in the left breast, and did not know that there was anything amiss with the other. I found some knotted lumps in the middle of the gland, concerning the nature of which it was impossible to feel certain. There were several of them, but one was larger and harder than the rest. On examining the other breast, according to rule, I found exactly the same state of things in it, though less advanced. There was no gland-disease in either axilla. The mammae were wasted, but they had formerly been large ones, and they still covered large areas. There was enough of suspicion about the conditions to make me feel sure that, had only one breast been affected, I should have advised its removal, especially with such a bad family history; and, on thinking the matter over, I could not see any reason why, if one were taken, the other should not be also. I therefore determined to excise one, and examine it, and, if the conditions found were what I suspected, to remove the other also.

At the time of operation, before proceeding, I punctured one of the largest lumps, feeling a suspicion that it might prove to be a cyst. No fluid was obtained. After excising the gland, we found that it contained numerous small cysts, from the size of a pea to that of a hazel-nut, which contained a greenish glairy fluid. In addition to them, there were, however, several solid knots of new growth, which looked like scirrhus. This decided me to remove the other gland, and, on examination of it, precisely similar conditions were discovered. I had been very particular to remove on both sides every portion of gland-tissue, and the wounds were necessarily very large. The incisions from the two sides very nearly met on the sternum. The skin left was exceedingly thin.

The operation had been conducted, as usual, with Lister's full precautions. I only dressed the wounds twice afterwards, and on the eighth day took leave of my patient, healing being quite complete. On account of the thinness of the skin, I removed the drainage-tubes on the second day, and after that did not look at the wounds till the sixth. There had never been a single drop of discharge. Thus it may be said that the patient did not feel the shock of the double operation at all more than if it had been a single one, and that she recovered as well as she could possibly have done.

I will leave for the present the discussion of the precise nature of the solid growths in these breasts. They have been carefully examined, and, although in all probability cancer, they will require minute description. It will suffice for my present purpose to repeat that, by the unassisted eye, it was impossible to distinguish them from scirrhus. It was this fact which was held to justify the removal of the other gland, and would have justified it, independently of the verdict of the microscope. At some future time, when the facts as to recurrence or exemption are before us, it will be of interest to recur to the question as to their precise histological characters.

It may, I think, be held to be sound surgery to remove both breasts whenever suspicious conditions exist in both in an early stage. By adopting such a rule, we should probably save a certain number from ever becoming the subjects of declared cancer. I am not sure that we might not suitably extend that rule, and hold that, whenever the local conditions are favourable for operation if the disease be on one side only, the fact that it is on both ought not to deter us. Probably the double operation is only by very little more dangerous than the single one; and under modern plans of dressing there are but very few cases in which the patient is not, to some extent, a gainer by the removal of a cancerous breast. Whether one or both glands are concerned, our practice should, I think, be to operate when in doubt.

No means should be omitted to clear up the diagnosis; but if, after all such have carefully been used, doubt remains, then we allow our patients to run needless risks if we encourage waiting. Amongst these means, there is none more frequently valuable in correcting erroneous impressions than the exploring trocar. The cases which it clears up are not, however, those which puzzle us most. Nor in all cases does the difficulty vanish even when fluid has been obtained. For there are not a few cases in which cancer exists, either in conjunction with numerous small cysts, or in which it follows on such formations. It is in this class of cases especially, of which the above is one, that double operations may be called for.

If it be asked whether, in cases of double disease, it is better to remove the two breasts by a single or by separate operations, I would venture, without hesitation, to recommend a single one, as probably involving both less risk and less inconvenience to the patient.

OPERATION FOR THE CURE OF STERILITY IN CASES OF CONICAL CERVIX WITH FLEXION OF THE CERVIX UTERI.

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ONE of the rather common causes of sterility in women is the presence of what is termed "conical" cervix. This term expresses, however, only imperfectly the real explanation of the difficulty. More generally the vaginal portion of the cervix is elongated, as well as conical, and the whole of the cervical canal is also, in the majority of cases, much curved. These are the cases *par excellence* which have been termed by Emmet "flexion of the cervix." In such cases, the uterus appears to have gone through a series of changes subsequently to arrival at puberty, namely, (1) imperfect nutrition; (2) softness and want of tone; (3) gradual acquirement of anteflexed shape, mainly as a consequence of the imperfect nutrition and softness of the uterus; and (4) a further and exaggerated condition of flexion of the cervix of the uterus. Resting on the floor of the vagina, the vaginal part of the cervix becomes, as it were, doubled up, so that the os uteri looks upwards and forwards. The condition of the uterus thus associated with conical cervix constitutes one very difficult to deal with, especially if, as sometimes happens, the uterus, as a whole, be tilted backwards, constituting retroversion, conjoined with extreme anteflexion.

Thus, the vaginal cervix is not only too long, but it is sharply curved, and the combination appears to be a great obstacle to conception.

Two principal methods have been heretofore recommended, namely, (1) amputation of a portion of the cervix; and (2) opening out the cavity of the cervix by a median incision through its posterior wall, as recommended by Emmet and Sims. Another method of treatment would be the use of an intra-uterine stem.

A short time since, a patient, with a very decidedly curved and elongated cervix, was sent to me by Dr. Kerans, of Northwich. The patient was very anxious to have a family, and suffered much from disturbance of micturition, and difficulty and pain in walking, due to the anteflexed uterus. She had been married four years. She was treated by means of a cradle-pessary, modified to suit the case, with success as regards general comfort, but the sterility remained. Last year, I performed an operation on this patient, which I now describe, and which seems to me worthy of further trial in such cases. My object was to straighten, as well as shorten, the cervical canal as regards its vaginal portion.

Having drawn down the cervix, I removed from its posterior aspect, in the median line, a portion of mucous membrane, nearly an inch in length vertically and half an inch wide, and, having done this, stitched the upper and lower margins together; the effect of the procedure being to shorten the vaginal cervix on its posterior aspect, to draw the os uteri backwards, and thus straighten the vaginal cervix and increase its patency. When the stitches, three in number, were tightened, the vaginal cervix was made to look downwards, instead of upwards. The figures annexed will render this explanation more intelligible. Fig. 1 gives a lateral view of the uterus and cervix before the operation, and shows the part from which the mucous membrane was removed; also (*a a*) the position of the sutures. Fig. 2 shows the condition after tightening the sutures. The sutures were removed after a few days. The operation was done at the beginning of the