whole time so thoroughly under their influence that he is perfectly passive. Of course, the operator may be embarrassed in his work if the patient be not thoroughly under control. Of course, means must be adopted to prevent any untoward movement. I need hardly say that the head must be fixed, and, if necessary, the action of the limbs restrained. But the surgeon, while legitimately securing every advantage for himself, must see that he does not lay upon the patient any additional danger. Now, my meaning is, that I have great objection, in these operations, to binding patients firmly down. It is very easy for the surgeon to secure the patient's arms closely to his side by towels or bandages; but reflect for a moment on the effect of this. If you were required to limit the movements of respiration, how could you more effectually accomplish that end than by drawing the arms forcibly down and fixing them tightly to the sides? And think, too, of what a free respiration means in such a case; not only how the circulation and respiration are associated, but of the urgent need from time to time of forcible expiratory efforts to clear the glottis and adjacent parts. Therein, indeed, lies the prime objection to anaesthetics; but their use saves so much in another way, that some extra risk may be justified on this account. But, for the sake of a little, if any, more convenience to the operator, ought a patient at such a crisis to be burthened thus? A couple of assistants will suffice to control all troublesome movement without mischief. I dare say some may consider this unnecessary refinement; that nothing can turn upon so trivial a point. Are you quite sure of this? And, if there be any question on the matter, there can be no doubt about the duty of the surgeon.

Lastly, the patient's danger may be increased from the interest of those around. As the operation proceeds, in a natural anxiety to see everything, those looking on, or even assisting, are apt to crowd closely around the table, and thus largely to deprive the patient of what just then he very much wants—fresh air. A hint before on this point, to be repeated if necessary, may not be amiss. I bring these points forward, not because I deem them important beyond all others, but because I think they especially are apt to escape attention.

CLINICAL OBSERVATIONS ON OVARIOTOMY.

By J. THORBURN, M.D.,

Professor of Obstetric Medicine in Owens College; Obstetric Physician to the Manchester Royal Infirmary; etc.

GENTLEMEN,—You have just recently seen—that is to say, those of you who are not engaged in anatomical or *post mortem* work—two very satisfactory cases of ovariectomy. Before your interest is absorbed by other cases, I propose to make a few clinical observations upon these. There are so many interesting abdominal tumours in our wards or out-patient *clinique* at present, that I want to fix a few points regarding each of them on your memory before they pass from our sight.

The two ovarian cases recently operated on are those of Mary Hughes, aged 45, and Susan Hoggard, aged 26, in the Dorcas Ward. You have heard from time to time full details of their past history, and have seen how a diagnosis was arrived at. Time does not allow me to repeat these details now, and I shall, therefore, briefly say that both cases were well marked examples of multilocular cystic disease; that each had been three times tapped, at rapidly lessening intervals; that each was free from other organic disease, as far as could be ascertained. Adhesions were slight in the case of Hughes, but more numerous in that of Hoggard; and, as they were very high in the abdomen, and required some force to break them down, I was not without anxiety on the score of secondary hæmorrhage.

I hope both cases may now be considered as convalescent. Now, I have been considering what are the chief points to which I can most profitably call your attention. The ordinary steps of the operation of ovariectomy you will find in every recent text-book; you have had leisure to study them, and two very good opportunities of seeing them. Judging, moreover, from the present state of our out-patient *clinique*, there will be no lack of similar opportunities in the future. Instead, therefore, of recapitulating these details, I will confine myself to one or two points which I have been trying to think out for myself, as far as my opportunities have permitted.

1. I have come to the conclusion that the operation of ovariectomy is beginning to be far too rashly undertaken, or, at any rate, in too early a stage of the disease. When ovariectomy was a new operation, those who practised it were often accused of selecting their cases, *i.e.*,

of operating only on those cases which appeared likely to be good ones, and refusing to operate on those which, although they might possibly save a patient from inevitable and almost immediate death, were more likely, by their issue, to discredit the operation and the operator. If Sam Slick's statement that there is a good deal of human nature in man be true, these accusations were probably not quite unfounded. But, as the operation has been more largely studied and practised, and especially as it has been gradually found out that the unpromising cases, *i.e.*, the cases of women past middle life, reduced, not in size, but in apparent vigour, by former tapplings, with a peritoneum accustomed to the presence of tumours and trocars, are by far the most favourable ones, this kind of selection is becoming a thing of the past. But another, and, in my opinion, as great a danger is arising. Everybody is now supposed to be capable of performing ovariectomy, and the *début* of a successful case among the patients and friends of the operator is so great, that such cases are eagerly sought after, and a curious page of medical history would be furnished by a collection, if such a thing were possible, of the results of ovariectomy during the last ten years in purely private practice. The splendid lists of successful operations which have been published by our great English and American ovariectomists are not without danger also to younger men who aspire to follow in their wake. During the past twelve months, I have tapped three healthy and otherwise vigorous women for ovarian tumour, and in each case have counselled considerable delay before having recourse to ovariectomy; in all these cases, the urgency of the friends has led to other advice, to operation, and to death. I have just heard also, within the last few days, of the case of a young lady who, after ailing for some time, was found to have ovarian tumour. Immediately she was taken to London for a consultation, operation was decided on, and, in less than three weeks, she was diagnosed, consulted over, operated on, and buried. Let me give you my very decided opinion that ovariectomy should not be so rapidly and rashly undertaken. I would advise you, in every case, to try one tapping at least; it will help in diagnosis, and it *may* cure. I have cured one case in this way which I thought was a growing multilocular cyst. If your patient be comparatively young, and otherwise in fair condition, try a second tapping at least, and carefully ascertain the rate of growth. If, after this, you are satisfied that life is beginning to be jeopardised by the exhaustion of tapping, by wearing pain, or otherwise, then ovariectomy may be performed with hopefulness and with greater probability of another addition to the splendid *résumé* of increased years of human life referred to with justifiable pride by Mr. Spencer Wells at the late meeting of the British Medical Association.

2. Another point to which I may allude, in connection with the operation, is the size of incision advisable. The question of a long or a short incision has been much discussed formerly, and statistics have been drawn up as to their relative value. Such statistics have, in my opinion, no importance whatsoever. The larger incisions were made, as a rule, for larger or more adherent tumours, or for cases more difficult in other ways; hence the short incisions were pretty sure to have the best of it. I cannot see myself what difference an inch or two more can make in the danger of an incision of the kind, and I have seen, both in my own practice and in that of others, great danger from adhesions which might have been much better treated with a larger wound, and from dragging at, instead of enlarging, the opening. Even in the case of unilocular cysts, there are often adhesions which require a good opening to treat them safely. I would advise you, then, in almost every case, to make an incision of fully four to five inches, and not to hesitate to enlarge it at once as freely as seems necessary to command a good view of what you are doing.

3. The treatment of the pedicle is a subject which has from the first been much discussed. You will find in Mr. Wells's work a most temperate and thorough discussion of the various methods that have been used, including its retention outside the peritoneum by the clamp, and its treatment within the peritoneum by ligatures, *écraseur*, acupressure, cautery, etc.; and his vast experience has led him to adopt the clamp for the great majority of his cases. I am bound to say, however, that the use of a strong well tied silk ligature, cut short and allowed to fall into the abdominal cavity, has so far commended itself to me. The late Dr. Tyler Smith had a very fine series of cases treated in this way; it was this which induced me to try the plan, and it is so superior in handiness, and in every way, to my mind, so much more simple, that I fancy I am likely to continue its use until I have met with a case where I find inconvenience from the after-presence of the ligature, or until I have been unfortunate enough to meet with one where a ligature of my own tying has proved insufficient to prevent hæmorrhage. I have unfortunately seen a very promising case lost in this institution from the slipping of the pedicle out of the clamp, which certainly looked as if nothing could have escaped from it. Bear in mind, how-

ever, that very powerful and pure silk, *i.e.*, animal tissue, well carbolicised, should be used. This must perforate the stump of the pedicle, so that it cannot slip off at the end, and must then be tied in two separate portions. If the pedicle be very thick or broad, three or even four portions must be tied separately. If these precautions be observed, sufficient force may be used in tying to render any danger from shrinking an impossibility. A touch with the galvano-cautery might add to the apparent safety where the operator is timid; the ordinary cautery is apt to leave behind it some *débris*, which is at any rate unnecessary.

4. The influence of a hospital atmosphere for evil upon cases of ovariectomy has been so clearly proved that it can hardly admit of any doubt; and possibly the Infirmary Board, when it has overcome some of its more pressing difficulties, may be induced to provide us with a separate building or thoroughly detached ward for such cases alone. It is not, therefore, with the view of disputing the dangers incurred from hospitalism that I point out how, nevertheless, with reasonable care, much may be done to obviate these dangers. We are now in a building which is acknowledged on all hands to be, in many sanitary respects, as bad as it can be, and where erysipelas has frequently been peculiarly rife. During the short time that I have been connected with it, there have been ten cases of ovariectomy: three by Mr. Southam, two by Mr. Heath, and five by myself; of these, eight have recovered with hardly a bad symptom, and there has been no septicæmic mischief. One, already referred to, died from the slipping of a clamp, and one (my own) from secondary hæmorrhage from numerous pelvic adhesions.

5. Antiseptic treatment, in its relation to ovariectomy, is a subject full of immediate interest. The intimate connection between all forms of septicæmia and certain germs, and the destructive effect of carbolic acid and other agents upon the latter, so ably advocated by Mr. Lister, seems to have passed into the region of absolute fact. Though not yet convinced, even by the exhaustive researches of my friend Dr. William Roberts, or by those of my old Edinburgh Infirmary colleague Mr. Lister, that there may not be some *tertium quid*, chemical, electric, or otherwise, which may stand in the relation of cause, or at any rate of promoter, both of sepsis and of germ-growth, the practice dependent on the theory that the one is the cause of the other seems so consonant with all present available hypothesis, and so approved by clinical facts, that I consider it utterly unjustifiable to deny our patients its fullest advantages. I will not enter into the question as to whether, in ordinary surgery, the processes of dressing advocated by some are not so complicated and unnecessarily troublesome as to deter many from the use of antiseptics—*ne sutor ultra crepidam*—but, in ovariectomy, I am sure that simpler and more effective, *i.e.*, more antiseptic, methods will suffice. The plan I have adopted in twenty-five successive cases of ovariectomy has been this: after tying the pedicle, I thoroughly smear it with carbolic glycerine and drop it into the cavity of the abdomen. This imparts a strong carbolic atmosphere to the peritoneal cavity, thereby increasing the effect of carbolicised sponges, ligatures, etc. The well known effect of glycerine upon the uterus, which you have seen in our ward practice, is, no doubt, exerted also on the pedicle and adjacent parts; a good deal of their redundant moisture is absorbed, and the natural process of shrinking is hastened. In these last two cases, I have also used the carbolic spray apparatus, and my friend Mr. Lund has kindly directed its application. After passing a sufficient number of silver sutures across the abdominal wound, I next smear every interstice of it with the same carbolic glycerine, not forgetting its free application to the peritoneal edges. I then tighten and twist the sutures, and apply a piece of lint dipped in carbolic glycerine. Some long adhesive straps, a clean napkin, and a binder complete the process.

How or when the wound heals, I cannot exactly tell you; for I do not look at it for ten or twelve days. In the case of Hughes, it was first looked at on the eleventh day; the stitches were taken out as free from discharge as if they had been imbedded in a turnip or other vegetable body. To-day, we will open up the dressings of Hoggard, and you will find the same result. All that is required is to remember that the cicatrix consists of very new tissue; and that you must provide, by adhesive straps and binder, for many weeks against the giving way of this new tissue; indeed, I consider such precautions more than usually necessary, seeing that you have, while hastening the adhesive process, diminished some of the inflammatory action which is usually supposed to make adhesion more complete. It is hard to say how far this real antiseptic treatment has modified the mortality of these twenty-five cases; but I will give you the results, premising only that, in every case, I have followed out the rules I have tried to impress upon you. I have not operated on a single case which did not appear to have a certainty of death within two, or at the most three, years; and in two of them death was immi-

nent from peritonitis within a few hours. Six of these twenty-five cases have died—one from hæmorrhage—I might almost say on the operating-table—two from peritonitis, which existed at the time of operation (in one of these I operated by gas-light; the symptoms were so urgent); one from hæmorrhage from adhesions in the pelvis, about forty-eight hours after operation; one from shock on the night of the operation; and one from pneumonia coming on on the fourth day after operation, after the patient had twice managed to escape from her bed in the search for stimulants. The most vivid imagination could not possibly trace the existence of septicæmia in any one of them.

If the clamp were used, this mode of procedure would not be quite so easy; but I think it would be quite available if the whole were well saturated with the carbolic glycerine, and if, as suggested by Dr. Marion Sims, some cotton-wool were placed above it, to prevent, by its filtering properties, the entrance of germs from outside.

Time will not allow me to touch on any further points; but there are one or two others to which I hope to draw your attention after our next case.

ABSTRACT OF HARVEIAN LECTURES

ON

THE MECHANICAL SYSTEM OF UTERINE PATHOLOGY.

Delivered before the Harveian Society of London.

By GRAILY HEWITT, M.D., F.R.C.P.,

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LECTURE III.

CONTINUING the analysis of uterine symptoms, amenorrhœa was mentioned as occasionally produced by compression in cases of uterine distortion. Sterility is necessarily produced by such compression of the uterine canal as prevents the passage of fluids. Another cause of sterility in these cases is the altered condition of the lining of the uterus when retention of secretions occurs; this damaging the products of conception.

Abortions have as their most common cause flexions of the uterus. Repeated observation of the frequency with which abortion and flexion are witnessed in conjunction, first led the author to this conclusion. Other causes of abortion, syphilis, lead-poison, accidents, mental emotions, account only for a comparatively few cases. Retroflexion is already admitted as a cause of abortion. It is not well known that ante flexion is a very common cause. Considering the part the uterus has to play in pregnancy, it is not surprising that decided distortions should have a disturbing influence. The organ is then more exposed to disturbance by straining efforts. The tissue-alterations produced by flexion must also interfere with its extensibility; and the condensation, puckering, and atrophy present at the seat of flexion are decidedly inimical to the healthy progress of pregnancy. Further, actual disease of the decidua may result (cases by Slavjansky). In many cases, as pregnancy advances, the flexion is relieved, but otherwise abortion generally occurs. Natural cure in this way is easier in ante flexion than in retro flexion cases.

Reflex Phenomena.—Of these, sickness or nausea stands first. This symptom is almost universally observed, more or less marked, when the uterus is diseased. It may be very slight, or it may be so severe and continuous that finally there is a fear of starvation occurring. It may be looked for almost as commonly as dyskinesia. In dysmenorrhœa, sickness is often a very prominent symptom. This nausea and vomiting are reflex in nature, the irritation being in the uterus. In some cases, like symptoms are observed from dislocation and compression of the ovary. Organic disease of the uterus also may occasion it. Putting aside these causes, we find that the most common uterine irritation is flexion of the organ. Indeed, severe reflex uterine symptom is invariably due to flexion. It is worse when the flexion is conjoined with considerable uterine congestion. In the slighter continuous forms, it is frequently conjoined with very undue softness of the uterus. The erect position, even sitting in such cases, induces nausea, in consequence of a slight temporary increase of the flexion so produced. Other reflex symptoms, hysteria, convulsions, etc., were next briefly discussed.

Disorders of the Function of the Rectum and Bladder are witnessed with great frequency in cases of flexion. When the axis of the uterus is more or less at right angles to the proper one, the rectum is often obstructed, defecation is hindered in retroversion, and flexion especially