ENDOSCOPY OF THE UTERUS.

WITH A DESCRIPTION OF A HYSTEROSCOPE.*

BY

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CHARLES DAVID, in a Paris thesis (1908), described a method of endoscopy of the uterus, in which he employed an instrument consisting of a sheath into which fitted the cystoscope, closed at the far end by a glass crystal and containing near it an incandescent lamp. By enclosing the lamp he hoped he avoided blurring of the visual field due to the bleeding following the introduction of the instrument, but this instrument was never taken up.

Dr. Rubin of New York has described¹ the technique which he has been employing during the last few months, in making endoscopic examinations of the uterine cavity. The hysteroscope which he has used is a modification of the cysto-urethroscope devised by McCarthy, and can only be used combined with gas inflation. He makes his observations without anaesthesia.

Since last May I have been experimenting with simpler means of uterine endoscopy before hearing of Rubin's work, but under general anaesthesia. Patients in England are not so docile as in America, and do not bear so well manipulations which may be decidedly uncomfortable without an anaesthetic. I first began with a tube angled like a uterine sound, to facilitate introduction of the cervix in the usual way. This tube, after introduction, was straightened out by a device designed by Messrs. Davidson of Great Portland Street, which held it fixed in the straight position. The light was at the proximal or ocular end, reflected into the tube, as in one type of sigmoidoscope. With this instrument I obtained some views of the endometrium, but only fleeting ones, as blood oozing out and mucus soon obscured the view. After the examination of a few cases I soon found that it was unnecessary to have an angled tube, as a straight one is easily introduced after the cervix has been dilated up to 10 or 12 mm.

The next problem was to get rid of the obscuration of the view by blood and mucus. Constant irrigation by sterile water or saline did not solve the difficulty, as it was found impossible to get rid of air bubbles, which spoilt the view. I then thought of continuous suction, as used by Dr. Chevalier Jackson for bronchoscopy. I determined to try a hysteroscope made on the bronchoscope principle. The George P. Pilling Company, surgical instrument makers in Philadelphia, have made for me suitable tubes for uterine work. There are two tubes made of brass, each 28 cm. long, one having a bore of 6 mm. and the other of 9 mm. The light is at the distal end, and is furnished by a dry battery on the current from the main, after it has been run through a suitable resistance. The distal end, which carries the light close to the opening, is bevelled at an angle of 45 degrees, and the edges are rounded off so that there is nothing to scratch the endometrium. In the wall of this tube are three channels—one for the rod which carries the light, and one on each side for suction; either channel can be used for irrigation if need be. When in use the suction channels are connected by rubber tubing to a bottle with a rubber cork, which is kept a partial vacuum by means of an electric suction apparatus. I have found the Mennell pump satisfactory; it can be used with any voltage, which is a great convenience. The 9 mm. tube is intended for general use; the smaller (6 mm.) is reserved for the post-climacteric uterus, or for cases where dilatation to over 10 mm. is difficult.

For an endoscopic examination the patient is prepared

by placing a glycerin tampon against the cervix for two nights to make it easily dilated. I usually slowly dilate up to 12 mm. The hysteroscope is then very gently introduced; a swab on a sponge holder is used as an obturator, and prevents the lamp becoming obscured by blood during the passage through the cervical canal. The suction apparatus should be set going previous to the introduction. When the instrument is passed in almost to the fundus, the swab on its holder can be withdrawn, and only introduced again should the lamp become smeared. With the suction apparatus working briskly, the lamp end of the tube only requires swabbing out three or four times during an examination.

The whole endometrium is then carefully scrutinized by turning the instrument about and by partially withdrawing and reinserting the lighted end. The whole lining of the uterus cannot be seen at once; it has to be examined piecemeal. There is an aluminium handle to the instrument, which is intended to give one direction during use.

I find that the more cases one examines the more one can see. The first time a cystoscope is used it is with very little profit to the observer; and so with the hysteroscope one needs practice to become familiar with the appearances of the endometrium in its functional changes during the menstrual cycle and in its alterations from pathological causes.

So far I have examined some fifteen cases, and have been able to see and remove a large fibroid polypus and diagnose a case of fungous endometritis. I derived great help in removing the polypus by being able to trace up the pedicle to its origin on the anterior uterine wall, near the fundus, and snip it through at the right spot by sight, avoiding buttonholing the uterine wall, which can happen when the weight of the polypus has caused a partial inversion of the uterus. The difference between the appearance of the mucous membrane of the uterus during menstrual life and after the menopause is striking; in the latter case the membrane is much paler and smoother. I have also been able to bring into view the ostium of a Fallopian tube.

I believe endoscopy of the uterus is going to prove useful in diagnosing the uterine causes of genital bleeding, since it can reveal such lesions as glandular hyperplasia of the endometrium, polypi, retained products of conception, chorion-epithelioma, and carcinoma. A piece of tissue can easily be removed for microscopic purposes by direct vision. The diagnostic curettage has often been a disappointment to me and, I am sure, to others. The scrapings removed in this way do not really give the pathologist a fair chance.

The instrument and the method of using it here described have the advantage of extreme simplicity. Uterine endoscopy is in its infancy, but from the limited experiences I have had of it I believe that it will be of great use as an aid to diagnosis, and of some therapeutic value also.

REFERENCE.

¹ Amer. Journ. Obstet. and Gynecol., September, 1925.

THE TREATMENT OF UTERINE FIBROIDS
BY MYOMECTOMY.*

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It should be an axiom that when surgical intervention is necessary an innocent tumour should be removed, but the organ which contains it should be left, unless the removal of the tumour alone is a more dangerous operation, or the organ that is left is useless. Myomectomy must from its very nature be a higher ideal than hysterectomy, whether total or partial. Why, therefore, have surgeons and

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