PROVINCIAL MEDICAL & SURGICAL JOURNAL.

A NEW AND EASY METHOD OF PASSING A LIGATURE AROUND POLYPOUS GROWTHS FROM THE UTERUS.

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It is, I believe, generally admitted, that the ligature is the safest and most effectual remedy for the removal of uterine polypi. It must, at the same time, be confessed, that the ligature is more tardy in its operation than the knife or scissors, and that its application is occasionally attended with considerable difficulty, either from the position or size of the polypous growth. Such a difficulty causes, of course, great delay in the operation, and sometimes exposes the surgeon to the hazard of being considered unskilful, whilst, in reality, no blame whatever attaches to any want of skill on his part, but to a defect, either in the instruments employed, or in the manner of their being applied. To remedy such a defect, and to improve the method of application, is the object of this paper.

It has so happened, that during the present year I have met with no less than five cases of uterine polypi, three of which were treated with the ligature, one was removed by excision, and one has not admitted of any surgical treatment, on account of its being associated with organic disease of the right ovary.

To one of the cases treated with the ligature I was called in, by Mr. Warrick, of Tredbridge, in this county. This patient (about 45 years of age,) had been many years drained by profuse uterine discharge, which had greatly reduced her strength and blanched her countenance; and it was not till she consulted Mr. Warrick, that a polypus was discovered to be the cause of the symptoms; but as the growth was found to be for the most part within the cavity of the uterus he deemed it impracticable to remove it. Upon examining the polypus myself, I agreed in that opinion, and therefore we decided to postpone any endeavour to remove it till it had descended further into the vagina.

After a few months we visited her again in consultation, and having ascertained that the polypus had descended sufficiently low to admit of an attempt to pass a ligature around its neck, we at once decided on the operation by means of a curved rod and Sir Charles Clarke's straight canula, which I had been accustomed to use in such cases. The polypus was the size of a large pear, had rather a thick stem, and, being attached to the internal and anterior surface of the neck of the uterus, it lay diagonally across the vagina with its inferior bulbous end in the hollow of the sacrum. This position rendered the application of the ligature in the usual

way extremely difficult, as the rod was not sufficiently long to carry the ligature over the body of the polypus. Several attempts were made by each of us in vain, till Mr. Warrick, recollecting that he had a male catheter with him, thought that by the larger curve of that instrument he might probably succeed. Suffice it to say, it did succeed admirably, and the polypus was effectually tied.

I have thought fit to state this case somewhat in detail, to show how a difficulty, occurring many miles from home in the depth of the country, and apparently insuperable, may be sometimes, by a little reflection, easily overcome; and also to impute to the success of this instrument whatever improvement may be allowed to the mode of passing the ligature hereinafter to be described.

The instruments that have been employed hitherto for the removal of uterine polypi by ligature, are :—

First. The double canula, with a silver wire noose.

Second. Levret's instrument, consisting of two silver canulæ, "which are curved in such a manner, and so united by a joint, that they are shaped like a pair of forceps. After introducing a ligature through the two tubes, so that its ends hang out of their lower apertures, the instrument is to be shut and passed upwards into the vagina over the polypus, on whichever side seems most convenient; then it is to be opened, and the polypus is to be pushed through the two branches of the instrument, which is to be brought over to the opposite side of the tumour. In doing this the ligature becomes applied round the root of the polypus and forms a noose. The extremities of the ligature are next drawn as tightly as possible out of the lower openings of the canulæ, and tied first in a surgical and then in a slip knot; the instrument is then shut and the ligature constricts the root of the polypus."

—*Cooper's Dictionary of Practical Surgery.*

Third. An instrument, described by Nissen, "de polypis uteri." It consists of two silver canulæ equal in size, somewhat curved, and twelve inches in length. Through each of the canulæ a strong ligature is to be passed, the ends of which are to hang out of the lower apertures, and its middle portion to form a noose between the upper apertures of the instrument. The tubes, being kept together, are to be introduced into the vagina as far as the root of the polypus; and whilst one is held fast, the other is to be carried round the tumour, till it rejoins its fellow. The ligature is thus made to encircle the root of the polypus; and, having ascertained that it is properly placed, the two tubes are united by sliding the short canulæ over them, one of which is carried by the finger or by a

forked wire to their distal, the other, having a ring at either side, is fixed upon their proximate ends; the ligature, having of course been drawn through the short canulæ previously to their application, is now tightened and made fast upon the rings.

Fourth. A curved metal rod, and a straight canula, employed by Sir Charles Mansfield Clarke. The rod is shut into a wooden handle, and by means of a spring stop, to regulate the length of the rod, the instrument ranges from eight inches to eleven inches and a half. The canula is seven inches long, the upper end of which, for about four inches, is of the size of a large goose-quill; at its lower end it is stouter, and consists of a fine screw, adapted to pass through a female screw in the centre of a circular box-shield, two inches and a half in diameter, for the purpose of regulating the length of the canula, and of preventing any mischief to the uterus or vagina by the upper end of the instrument. The rod carries the ligature round the root of the polypus; and, both ends of the silk having been drawn through the canula, by means of a long piece of wire hooked at the end, the tube is directed by it to the root of the polypus, when the ligature is tightened and made fast to two rings at the foot of the canula.

Fifth. Three straight slender rods, used by the late Dr. Gooch. They are all of the same length, eight inches, and of the size of a common knitting-needle. Two are perforated at the upper end; the third has a small ring projecting obliquely from its upper, and a short transverse wire across its lower end. The perforated rods are for the purpose of carrying the ligature round the stem of the polypus, and having done so, they are brought together in a parallel position, and, with the ligature, threaded through the ring of the third rod, which is then pushed up to the stem of the polypus. The two first rods being withdrawn, the ligature is tightened and made secure to the cross wire.

Many of these instruments display great ingenuity, and deserve much praise, especially the double canula of Nissen; Sir Charles Clarke's canula, with its shield; and Gooch's fastening rod; and, in the generality of cases, with attention and a little patience, they answer the purpose; but still, in my judgment there is room for improvement, and I would propose the following alterations:—

The instruments are to consist of three metal tubes, two of which are to be of the length, shape, and size of a No. 8 male catheter, except that their sides are to be flattened, and that there be no rings at their lower ends. The curved extremities are to be rounded, each having an orifice in the centre, with smooth edges, and large enough to admit a strong ligature. The third is a stouter tube of the same diameter, eight inches in length, and straight to within an inch of its upper end, which is to be slightly bent and bulbous. A short transverse bar is to cross its lower end, at about an inch from the extremity.

Position of the patient.—Nothing conduces more to the facile use of instruments than a proper position of the patient. She is to be placed on her left side upon a mattress, with her trunk lying transversely across the long diameter of the bedstead, and her ischia upon its edge; the femora are to be well flexed, and the knees half bent and kept separate by a pad or small pillow.

Mode of application.—The two curved canulæ, containing a well-oiled ligature, and exactly fitted together

at their flat sides, are to be introduced into the vagina, with the concave surface to the pubes, their curved ends being directed to the anterior part of the stem of the polypus by the forefinger of the left hand. An assistant takes charge of the left tube, and the ligature being reflected and held between his finger and the canula, he keeps the instrument fixed in its position by pressing it steadily against the arch of the pubes. The right canula, with the ligature lying loose in the tube, is carried round the stem of the polypus, and brought again into position under the arch of the pubes at the *left* side of its fellow. The canulæ are now to be cautiously withdrawn, by depressing their handles towards the abdomen, and as their points are quitting the vagina, the ligature is to be caught between the finger and thumb, and held tense till the canulæ are completely clear of it; it is then by means of a hooked wire, to be drawn through the third tube at its bulb end, which it guides to the root of the polypus. Having ascertained that no part of the os uteri is included within the noose, and the bulb of the tube being turned to the polypus, the ligature is tightened and secured upon the cross at the foot of the instrument.

The advantages of this method of tying uterine polypi are—*first*, that it establishes a fixed point for the ligature, close to the os uteri, and which was scarcely attainable by any former method on account of the unsteadiness and mucosity of the surface of the polypus. *Second*, the length and curve of the canulæ, by which the ligature can readily be slipped round the root of the polypus by the second canula, from the fixed point established by the first. *Third*, the curves of the canulæ taking the course of the pelvic outlet, gives a freedom to the operation, of which, by the means hitherto employed, it has been comparatively deprived. And, *lastly*, there is also an advantage in the bend and bulb of the third tube; the former allows a direct action to the ligature, the latter prevents in great measure, all danger of the uterus or vagina being injured by any incautious movement of the patient.

I shall request the favour of Mr. Weiss to manufacture these instruments, in order that they may be put upon their trial; and I shall feel obliged by a report of their action from any of my professional brethren who may think fit to try them.

Mr. Weiss manufactured the "arch-tourniquet," published by me in the *Provincial Journal* for November 25, 1843, page 151, and I am happy to learn that it has been found to answer its purpose well.

Southampton, Nov. 21, 1846.

TABLE OF CASES OF CHOREA.

TO THE EDITOR OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

SIR,—In answer to one of the questions proposed by "A Member," in the last week's *Journal*, I beg to send the following table, which was drawn up about a year ago. I trust some further information on this interesting subject may be elicited.

I am, Sir, your obedient servant,

FERGUSON BRANSON, M.D.,

Physician to the Sheffield General Infirmary.

Sheffield, Nov. 19, 1846,