VAGINAL STERILIZATION, WITH OR WITHOUT VAGINAL HYSTEROTOMY

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THE welfare of certain patients requires that they should not be subjected to the perils of future pregnancies. Such women are those suffering from nephritis, cardiac disease where compensation previously has failed, and active pulmonary tuberculosis. If these individuals should come under observation when an early pregnancy is in progress it is equally advisable that their uteri should be emptied at the same time that sterilization is effected.

The method heretofore employed in our clinic and by many American operators has been to open the abdomen, incise the uterus, evac-

Fig. 1.—The labia minora, if redundant, are sutured to the skin, thus keeping them out of the way. The anterior vaginal wall is opened by the conventional inverted T incision used in vaginal cesarean section.

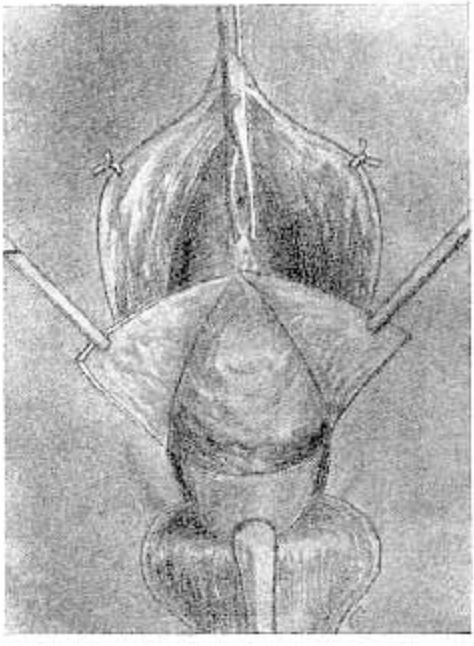

Fig. 2.—The two triangular flaps of vaginal wall formed by the inverted T incision are now pulled outward exposing the bladder.

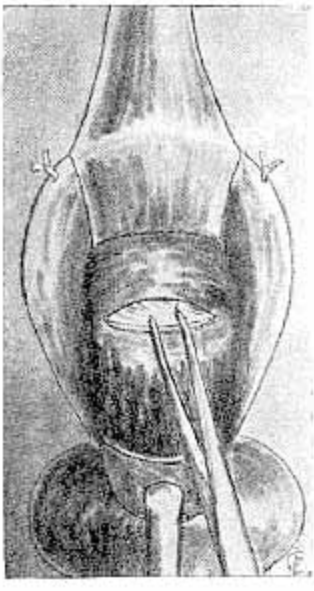

Fig. 3.—The bladder has been separated from the lower uterine segment by scissors and gauze dissection and is held up out of the way by a long bladed vaginal retractor. The uterovesical fold of peritoneum has been identified and opened by a transverse incision, exposing the lower portion of the anterior surface of the uterus which has been grasped with a double tenaculum forceps.

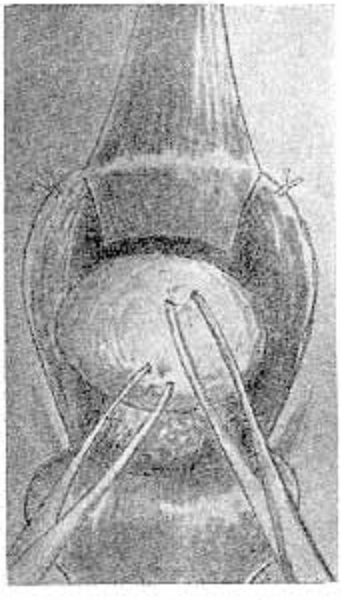

Fig. 4.—The Piper cook previously applied to the anterior lip of the cervix have been removed and the cervix replaced in the depths of the vagina so that the fundus of the uterus may be drawn forward through the peritoneal incision. The fundus of the uterus is delivered by traction on the tenaculum forceps, which are placed one above the other in successive bites as more and more of the uterus appears in view.

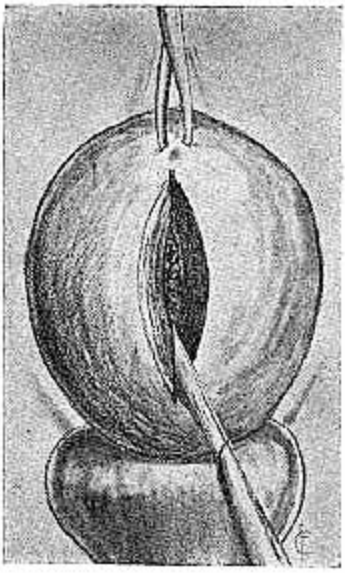

Fig. 5.

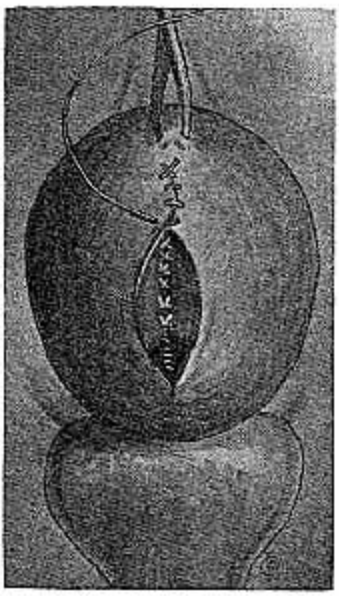

Fig. 6.

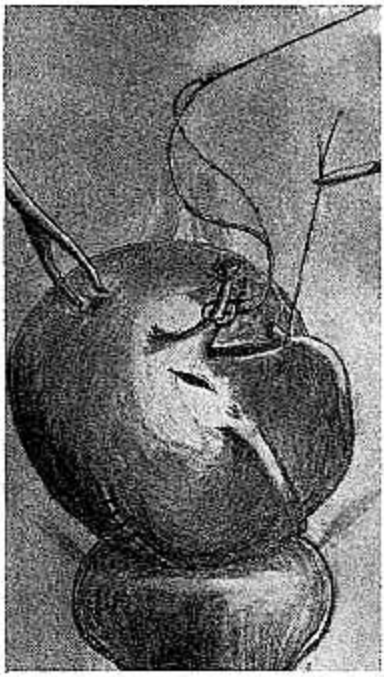

Fig. 7.

Fig. 5.—The anterior surface of the uterus is incised longitudinally and the ovum removed either by the finger or by a large blunt curette.*

Fig. 6.—The uterine incision is now closed in layers with chromic catgut. The deepest layer is continuous, the next, which embraces the bulk of the muscularis, interrupted, and the final, or peritoneal, stitch is of the overlapping continuous variety.

Fig. 7.—The operator now proceeds to sterilize the patient by the method I have devised for the abdominal route. One cornu of the uterus is drawn into view. Both tube and round ligament are identified. The tube is doubly ligated with chromic catgut about 1½ inches from its uterine insertion and divided between the ligatures. The proximal end is dissected free from its mesosalpinx with a sharp knife, keeping close to the tube to avoid bleeding. The loop of a double suture armed with either a straight or a round needle is slipped over the free proximal end of the tube. The tube is now transfixed with the needle proximal to the loop, thus forming a slip noose. A small incision is made anteriorly in the uterine serosa at the base of the tube.

*Incision of the anterior wall of the uterus above the cervix may be carried out readily as late as the end of the third month of pregnancy. Beyond this date the uterus is best emptied by the classical vaginal cesarean section before proceeding to sterilization. According to Kakuschkin the advantage of the supracervical section is that the integrity of the cervix is not destroyed and healing is therefore more satisfactory.

uate its contents, suture it and sterilize the patient by some operation upon the tubes. This procedure is not technically difficult but it carries with it the disadvantages inherent in all laparotomies.

It has seemed to me that with multiparae in whom the pelvic supports were well relaxed, the same results could be obtained by operating through the vagina provided that pregnancy had not advanced far enough to make the operation unduly difficult. The advantage to be thus derived lies in an increased smoothness of

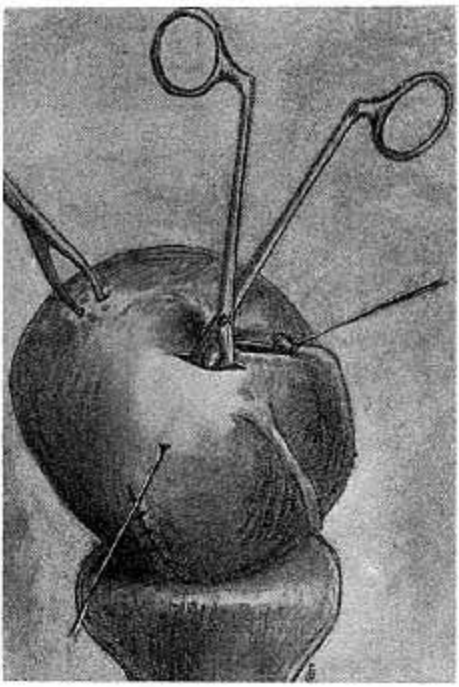

Fig. 8.—A pocket is made in the uterine muscularis by spreading a pointed hemostat. The needle carrying the double suture to which the tube has been attached by the slip noose is passed through the pocket and brought out on the surface of the uterus about an inch distant.

By spreading the mouth of the pocket with the hemostat and by traction on the double suture the proximal end of the tube is buried in the uterine muscularis.

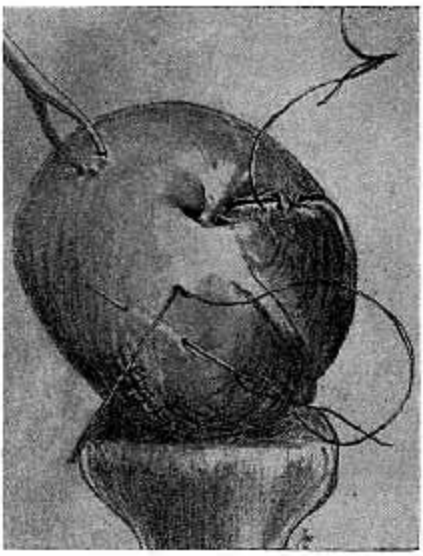

Fig. 9.—One strand of the double suture is cut and the needle which now carries the other strand is passed through the uterine surface at right angles to the direction of the double suture. The two ends of the double suture are now tied, thus anchoring the end of the tube in the pocket.

The cut end of the distal portion of the tube may be buried in the mesosalpinx with a running suture or it may be left unburied if this part of the operation presents any difficulty.

convalescence. The same absence of pain, vomiting and distention that one expects after the Watkins-Wertheim interposition operation has characterized the recoveries of the four patients upon whom the writer has recently operated by this method. On the other hand, there is no doubt that the vaginal method is more difficult than the

abdominal, although this should not be a valid objection to a competent operator if thereby the patient's comfort is increased.

The essentials for the operation are:

1. The patient should be a multipara in whom the pelvic supports are well relaxed.

2. The uterus should be freely movable and easily drawn down. A previous suspension or fixation or the presence of adhesions limiting the mobility of the uterus are contraindications.

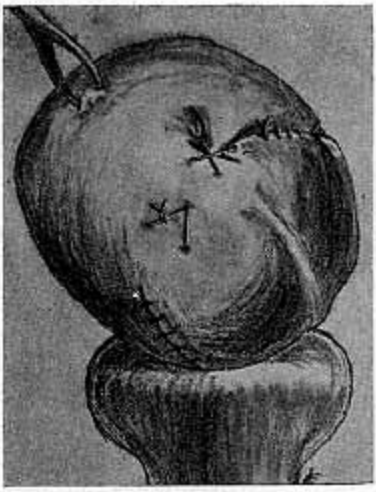

Fig. 10.—The mouth of the pocket is closed with a figure-of-eight suture. The other cornu is drawn into view and the same procedure repeated on the other tube.

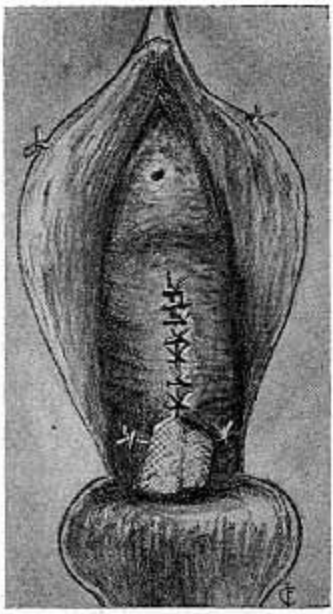

Fig. 11.—The portion of the uterus that has been delivered is returned to the peritoneal cavity. The incision in the uterovesical fold is not sutured as its closure is likely to prevent the escape of blood from the sites of operation on the uterus. A drain is placed to the uterus through the peritoneal opening to prevent the formation of a hematoma and is removed at the end of forty-eight hours if conditions are satisfactory. A cigarette wick is more easily removed than one of gauze alone. The vaginal incisions are closed to the drain with interrupted sutures.

3. If the patient is pregnant she should not have passed the fourth month of gestation. I have emptied by classical anterior vaginal hysterotomy the uterus of a woman who was five months pregnant and sterilized her with considerable difficulty *per vaginam*. In my opinion patients who have passed the fourth month are best operated on abdominally.

In all four cases sterilization was effected by doubly ligating the tubes and burying their proximal ends in the uterine musculature according to the method I devised and now employed in the Boston Lying-in Hospital for abdominal sterilization. One patient was assumed not to be pregnant, but her uterus was curetted as a precautionary measure and she was sterilized by vagina. Another was five months pregnant. Her uterus was emptied by vaginal cesarean section as noted above and sterilization done by vagina. The other two were two and three months pregnant. Their uteri were partially delivered after section of the uterovesical fold of peritoneum and were emptied by longitudinal incision of the anterior surface above the cervix as advocated by Kakuschkin.

The indication for operation in all four cases was chronic nephritis.

One operation was done under gas-oxygen-ether; the other three under a combination of pantopon-scopolamine and sacral anesthesia with gas-oxygen when needed. The convalescences of all were normal and notably comfortable and the patients were allowed up on the tenth day.

The legends accompanying the illustrations give the steps of the operation in detail.

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