

CHAPTER 62

VAGINAL HYSTERECTOMY BY LIGATURE
METHOD

By VIRGIL S. COUNSELLER, M.D., F.A.C.S.

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A correctly executed vaginal hysterectomy presupposes an accurate understanding of the pelvic fascia and of the special folds of this fascia which are designated as ligaments. These structures are always present as normal or stretched, torn or occasionally congenitally defective. The anatomy of these structures is described well in many texts on gynecology so that details will be omitted here. Briefly, however, the fascia arises on either side of the pelvic wall and passes medially toward the uterus, cervix, vagina, bladder and rectum. Here it becomes attached and splits into two layers, which surround the rectum, vagina and bladder, and then unites with the corresponding structure of the opposite side. *Round, broad, cardinal, uterosacral, pubocervical* and *rectovaginal* are names given to specialized segments of the pelvic fascia. If these structures maintain a normal relation, the uterus will remain in normal position. Injuries, congenital faulty attachment or defects precede displacements and uterine descent with cystocele and rectocele. This being so, it would naturally follow that if the uterus is removed vaginally and the bladder, vagina and rectum are to be replaced and held in normal position, these defects in the fascia must be corrected and the ligaments properly attached to the vaginal vault. Almost all descriptions of vaginal hysterectomy by any method show the ligaments being sutured together or brought into apposition by clamps beneath the bladder as a support for this structure. The vaginal wall is then attached to the fascia.

My description of the technic here differs considerably in that the ligaments are shortened in cases of descensus uteri and reattached to the angles of the vagina where they normally belong.

As the ligaments are shortened toward their point of origin they will elevate the vaginal vault when reattached to it. Conversely, if they are overlapped in the midline beneath the bladder or sutured together in this position, not only do they produce some deformity of the neck and trigone of the bladder but they tend to drop and shorten the vagina instead of elevating and restoring it to its normal length and position. If vaginal hysterectomy is to be performed for conditions other than prolapse, cystocele or rectocele, then the only reconstruction required is the reattachment of the uterosacral and cardinal ligaments to the lateral angles of the vaginal vault and the suturing together of the edges of the pubocervical and rectovaginal fasciae along the line of closure of the vaginal vault.

INDICATIONS

The indications for vaginal hysterectomy have been greatly extended in recent years to include pathologic conditions of the uterus other than descensus uteri, cystocele and rectocele. There are excellent reasons for this change. The postoperative convalescence and the period of disability following vaginal hysterectomy are infinitely less than those following laparotomy. Except in complicated intrapelvic conditions the experienced gynecologist can accomplish all corrective procedures vaginally and discard the combination of vaginal plastic operations and abdominal hysterectomy. Patients who have extensive endometriosis, large fibromyomas, chronic pelvic adnexal inflammatory disease or ovarian malignant lesions and those who have undergone multiple pelvic abdominal operations should not be operated on by the vaginal route.

The greatest indications for vaginal hysterectomy, per se, are in those cases in which the patient is more than 40 years of age and has uncontrolled functional bleeding, menstrual disturbances induced by small fibromyomas for which radium therapy was so frequently used in the past. Menopausal menorrhagia or metrorrhagia, recurring uterine polyps, chronic endometritis and pyometra of the senile type, early carcinoma of the fundus are easily dealt with vaginally. Patients who have carcinoma of the cervix which is still noninvasive, form an excellent group to

terior lip and pulling outward. The vaginal wall is completely incised around the cervix by a circular incision (Fig. 1). After the pubocervical fascia and rectovaginal fascia are incised, the bladder and posterior cul-de-sac are easily exposed. The bladder is elevated and the peritoneum of the anterior cul-de-sac is easily seen. The peritoneum is incised and a Deaver retractor is placed in the peritoneal cavity under the bladder for retraction (Fig. 2). This helps to hold the bladder and ureters upward. The peritoneum of the posterior cul-de-sac is next incised (Fig. 3).

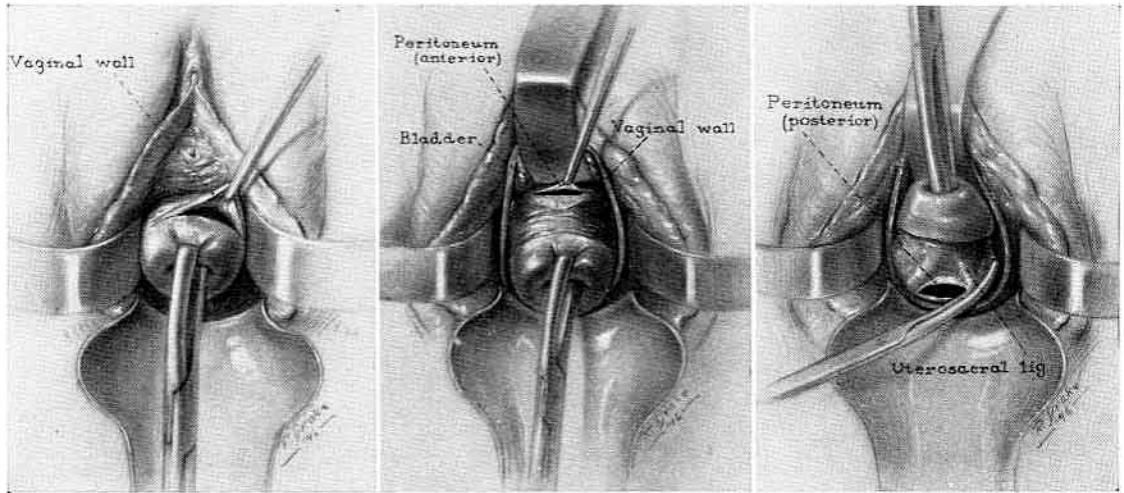


FIG. 1 (left). Incision of the vaginal wall around the cervix. The anterior vaginal wall is slightly elevated. (Courtesy of Dr. V. S. Counsellor.)

FIG. 2 (center). Deaver retractor on each side; one Deaver retractor under the bladder. Peritoneum opened. (Courtesy of Dr. V. S. Counsellor.)

FIG. 3 (right). Posterior cul-de-sac opened. Heaney clamp applied to left uterosacral ligament. (Courtesy of Dr. V. S. Counsellor.)

undergo vaginal hysterectomy. Radium therapy is not required and the adnexa can be safely left if the patient is young.

TECHNIC

The patient is placed in the lithotomy position; then the vagina is thoroughly cleansed with soap and water. This is followed by cleansing with 50 per cent alcohol and the vagina and cervix are painted with merthiolate or any equivalent antiseptic. The cervix is closed only in cases of fundal carcinoma or of intrauterine inflammation.

Exposure is very necessary and is well obtained by using a weighted speculum on the perineum, an ordinary Deaver retractor on each side and a third one anteriorly. The first phase consists of grasping with a tenaculum on the an-

The uterosacral and cardinal ligaments are carefully exposed by gauze dissection. These ligaments are clamped, cut and tied separately on each side (Fig. 4). The adnexal ligament, including the round ligament, and the tube are divided and doubly ligated (Fig. 5). The uterus is then free and is removed.

The second phase of the operation is the reconstruction (Fig. 6), which includes closure of the peritoneum and reattachment of the ligaments. The peritoneum is grasped posteriorly by a suture, which then passes through the round ligament and finally through the peritoneum under the bladder. This suture is tied so as to bring the stump of the adnexal ligament outside the peritoneum. It is continued as a running suture to the opposite side, terminating in the same way as

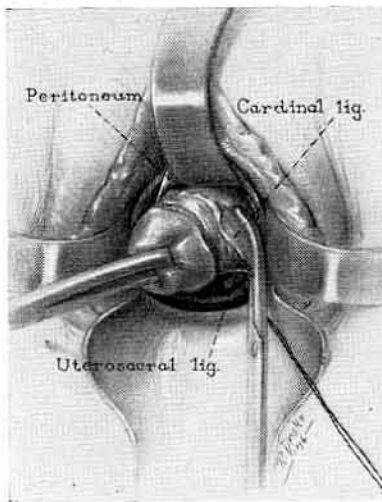


FIG. 4

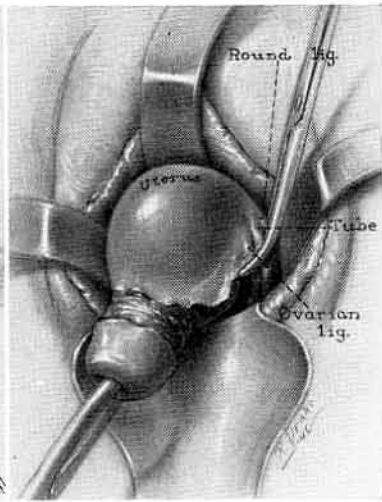


FIG. 5

FIG. 4. Left uterosacral ligament cut and tied. Clamp applied to the left cardinal ligament. (Courtesy of Dr. V. S. Counsellor.)

FIG. 5. Clamp applied to the ovarian ligament, round ligament and fallopian tube. (Courtesy of Dr. V. S. Counsellor.)

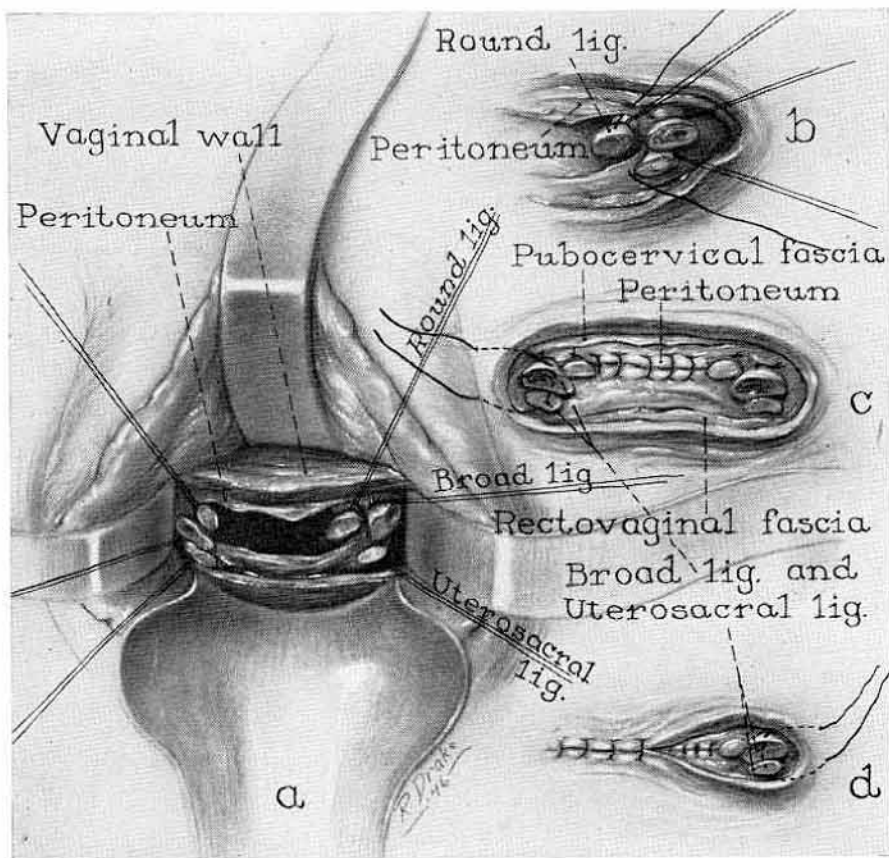


FIG. 6. Reconstruction of the vaginal vault: (a) Uterosacral ligament, broad ligament and round ligament are shown in their respective normal positions. (b) Peritoneum is being closed, bringing the stump of the round ligament including the adnexal ligament outside the peritoneum. (c) Peritoneum is closed and the cardinal, broad ligament and uterosacral ligament are being reattached to the angle of the vagina; they are being pulled laterally. (d) The left uterosacral and broad ligaments are being anchored to the left angle of the vagina and the pubocervical fascia and rectovaginal fascia are being closed together with the closure of the vaginal vault. (Courtesy of Dr. V. S. Counsellor.)

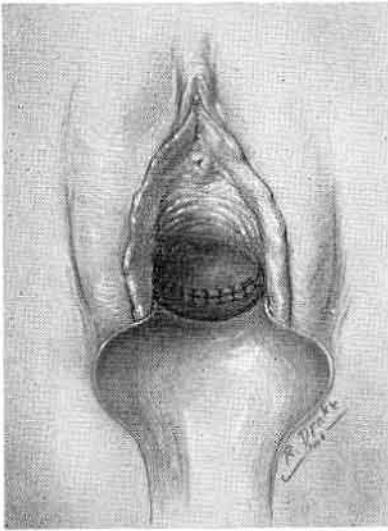


FIG. 7. Complete closure of the vaginal vault. Repair of the pelvic floor, which is often necessary, is done according to the technic detailed for vaginal repair noted in chapter on repair of rectocele and relaxed pelvic floor. (Courtesy of Dr. V. S. Counseller.)

on the side on which it was begun. The uterosacral ligaments and the cardinal ligaments are reattached separately to the angles of the vagina. The vaginal vault is closed with a running suture or interrupted sutures, which pick up the pubocervical fascia and the rectovaginal fascia and unite them with the vaginal wall (Fig. 7). Perineorrhaphy may be needed.

POSTOPERATIVE CARE

Patients without vaginal plastic repair need very little postoperative care. A retention catheter of the Foley or Counseller type is inserted in the bladder for one to two days. Then it is removed and patients are advised to get out of bed and have bathroom privileges. Nursing care is reduced to a minimum. Douches or vaginal examinations are contraindicated and the patients can be dismissed from the hospital in seven to 10 days and from observation by the surgeon one week subsequently.