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Abdominal
Operations
by the
Vaginal Route

Translated from the German by
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Abdominal Operations by the VAGINAL ROUTE

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Foreword

This *Atlas of Abdominal Operations by the Vaginal Route* has been written by authors who are obviously very familiar with performing many intra-abdominal operations through the vagina which would be difficult for the average American gynecologist. Difficulty in performance, however, does not constitute a legitimate excuse for avoiding doing such operations, provided that they are to the advantage of the patient and provided that the surgeon is sufficiently trained to execute them safely. It is the purpose of the authors in this translated volume to familiarize American gynecologists with these technics in which the authors believe that there now exists a void.

There is much difference of opinion among gynecologists as to the value of and the indications for the vaginal approach to abdominal pelvic surgery. The present volume is not designed to portray vaginal plastic surgery but rather to describe methods of performing many operative procedures through the vagina which are done by most American gynecologists through laparotomy. There is no doubt that many will differ with Doctors Werner and Sederl in many of their indications for the vaginal approach. For example, most American gynecologists prefer removing the uterus with endometrial malignancy by laparotomy. Likewise, almost all ovarian cysts are believed by most of us in America to be removed best by laparotomy. The authors of this volume do not regard the size of an ovarian cyst as a detriment to its removal through the vagina because "it can be reduced by puncture." The possibility of malignancy being present within an ovarian cyst which outwardly feels and

looks benign does not seem to occur to the authors. Also, most American authors routinely remove ectopic pregnancies by laparotomy.

In spite of this different point of view much can be learned even by the experienced gynecologist from this volume concerning the technical aspect of doing these procedures through the vagina. Even though an operator may routinely do certain procedures by laparotomy, occasions do arise when the vaginal approach can be most useful. Extreme obesity is one example. Another is when an exploratory posterior colpotomy is done, suspecting a tubal pregnancy. If the pregnant tube lies conveniently in the cul-de-sac, often it can be removed easily through the colpotomy incision, and the patient spared a laparotomy. Also, when tubal sterilization is desirable in a woman requiring a cystocele repair, the advantage of carrying out both procedures per vaginam is obvious. When performing vaginal hysterectomy for a fibroid uterus morcellation may be advantageous and, indeed, much safer than straining to remove the uterus intact. The necessity for this can occur even if the surgeon believes preoperatively that the tumor is small enough to be removed without morcellation. The authors are wise in suggesting that even with the most experienced vaginal surgeons rarely an occasion rises when good judgment dictates finishing the operation by laparotomy. The use of the interposed uterus in operations in certain cases of vesicovaginal fistulas is a technic almost forgotten in this country and, indeed, never known by most younger gynecologists. The authors call attention to this and other uses of the interposed uterus.

The value of this volume lies, then, in making available in a single small book certain technics which should be known to every practicing gynecologist. Sometime in his surgical career most of them can be utilized to the advantage of his

patients. The indications may appear unexpectedly in the course of an operation, and to be fortified with the knowledge and the technical ability may save the surgeon and the patient an unnecessary laparotomy.

RICHARD W. TE LINDE, M.D.

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Introduction

In the year 1906, E. Wertheim, in collaboration with his associate, T. H. Micholitsch, published a book on operations of the abdominal cavity by the vaginal route. This book, excellently illustrated, contains descriptions of all of the operations that are in common use even up to the present time. It is surprising that down through the years the vaginal methods, in spite of their undoubted great advantages when compared with the laparotomy, were not able to hold the position that they deserve. All over the world the laparotomy remained the preferred approach, and there are only a small number of gynecologists who utilize the vaginal methods in cases of plastic operations and in uncomplicated hysterectomies, in the latter only if the uterus has descended and the vagina is large.

What are the advantages of the vaginal technics? (1) They carry a lower mortality and morbidity. The convalescence is quicker and easier, and the danger of a generalized peritonitis is extremely slight, since the peritoneum is opened at its lowest point and its upper portion is not touched at all. With the use of the sulfa drugs and the antibiotics, infection is not the problem today that it was in the past. However, it still remains an item of importance. (2) Postoperative shock is hardly ever noted, and thrombosis and emboli are rarer than after a laparotomy. (3) A vaginal operation does not require as deep an anesthesia as a laparotomy. The superiority of the vaginal technic becomes evident if we have to deal with an obese or a cardiac patient. These are the cases that convincingly demonstrate its outstanding value.

Obviously, only those surgeons who

already have gained great experience in their work due to constant use of the vaginal technic and not those who only occasionally avail themselves of a vaginal operation, perhaps only as a "change," will acknowledge all these advantages.

Where extremely fatty abdominal walls are involved the vaginal operation very often is technically easier to perform than the laparotomy, since the operative field permits an easier access. Pulmonary complications are less common and, if present, can be better brought under control since the breathing is freer and deeper and the expectoration is not interfered with by a fresh and sensitive incision in the abdomen. Peristalsis sets in quicker, and atonic conditions are hardly ever known. Patients can be out of bed a few days following the operation. They recover in a short time and can be discharged from the hospital sooner. Also, they are able to resume their daily routines in the home sooner than after a laparotomy. Postoperative cellulitis of the abdomen or postoperative hernias do not exist, and it is obvious that even a perfectly healed laparotomy wound cannot compete with an abdomen with no scar at all. Furthermore, let us not forget the psychological factor. A woman will give her consent more readily to a proposed operation if it can be performed, as they say, from the "inside" and if we can promise that there will be no incision on her abdomen. Patients who refused an operation were almost exclusively those who were told that the operation would have to be performed with an outside incision; patients hardly ever refused when we promised that the vaginal approach would be chosen. The

women themselves consider this way to be less dangerous.

It is worth while to seek the reasons why so many surgeons, although convinced of the advantages and the absence of setbacks for the patient, still are reluctant to adopt the vagina as the preferred approach for an operation.

According to our experience that stretches over decades, we cannot accept the objection that the postoperative course in a vaginal operation is too complicated and associated with prolonged septic temperatures. We are rather prone to assume that these surgeons believe that the vaginal technic is too difficult or that they advocate the point of view that they do not find it necessary to learn a new technic for conditions that can be mastered just as well abdominally, perhaps with even more ease. We cannot let this argument pass without criticism. If an operation promises essential advantages to the patient with no risk to her, it is the duty of every surgeon to become acquainted with its technic, if he ever takes the well-being of his patient to heart at all.

The technic is not as difficult as many think. The difficulties may find their explanation in the fact that there were some faults in the technic. If the technic is correct, the operations become typical and can be learned with safety by any surgeon.

We do not intend to go into details at this point as far as the selection of the appropriate cases is concerned. Our general point of view for the indications is as follows. A beginner will have to select his cases more cautiously than an experienced surgeon. With expanding experience, the surgeon will enlarge his field of indications. Cases with a doubtful diagnosis or cases that had a laparotomy previously performed are better excluded from vaginal operations. They might

render the orientation somewhat difficult because of the altered anatomic relations in the pelvis. Also, cases where access through the vagina is not suitable due either to abnormal narrowing and lack of elasticity or to extensive scarring should be reserved for laparotomy. Cases of malignancy, except carcinoma of the uterus body, also are best done by laparotomy. However, adhesions are not considered to be a contraindication, especially not in a hysterectomy.

It may happen that an operation will be started vaginally and because of arising difficulties will have to be finished by laparotomy. Such a change-over does not involve any danger to the patient and, with no exceptions, is due to a poor indication.

The uncertainty of many surgeons in the vaginal technic is explained by the fact that the books on operative gynecology fail to contain precise and clear descriptions of the operations in all their details. Even Weibel, the author of *The Gynecological Operative Technic of the School of Wertheim*, does not mention in this book how the incisions are made and how the stumps are to be taken care of at the conclusion of a conservative operation. And Weibel is an author who, in his publications, goes into detail in describing the technic. The incision and the care of the stumps are very important factors in the vaginal technic. Proper attention given to these items will ensure, with almost a 100 per cent degree of certainty, a clean and uncomplicated post-operative course.

It is this special technic to which our entire consideration is devoted in this book.

There is not a single book in the world literature that deals in a really comprehensive way with the description of all the operative procedures as practiced by us for so many years.

Instruments and Preoperative Instructions

A technically correct performance of the operations described depends on an accurate knowledge of the anatomy concerned, on the surgical experience of the operator and on the use of suitable instruments. If the proper instruments for the operation are not at hand, the operation could become very difficult, perhaps even impossible. It is also of great importance to have a trained team of assistants and an instrument nurse available. Since frequently only unsuitable instruments were used in many hospitals, the authors intend to describe those instruments that we ourselves use in our clinic.

As anterior specula we use the bayonet-formed speculum which is named after Breisky. This instrument has a flat curvature and comes in two sizes. For general work we use the one which has a blade that is 9 cm. in length and 2.7 cm. in width. For working in greater depth another blade that is 13 cm. long is used.

The exposure of the posterior wall of the vagina is obtained by employing Sims's blades; these have different lengths and widths. However, these blades are replaced by the Martin speculum if in the course of the operation the cervix has to be drawn down (Fig. 1). There are two sizes of the Martin speculum.

As grasping forceps the Martin tenacula are used. They are 26 cm. long and come in both a delicate and a heavier form. In addition, there are the 4-pronged forceps of Museux (Fig. 2) and a forceps for grasping a cyst (Fig. 4). Both of these are of the same length as the tenaculum.

The dressing and the tissue forceps are usually 21 cm. long. For suturing we prefer the so-called Bozeman needle-holder which is 19 cm. in length. For transfixing ligatures the Deschamps is used, and to catch the thread a small rectangular blunt hook is used (Fig. 3).

As clamps we prefer the mouse-toothed ones that come in lengths of 19 and 24 cm. The shorter ones are used for the extirpation of the adnexa and come in a more delicate form (Fig. 4).

For the vaginal operations the curved clamps with the mouse teeth are particularly suitable because they provide a reliable grip on the tissue.

Straight clamps come in lengths of 19 and 22 cm. There are some with and some without teeth and they are of different strengths (Fig. 5).

Another straight instrument is a forceps that resembles an ordinary sponge-holder. It is 26 cm. long (Fig. 2).

There are many types of scissors in use. One pair used for dissecting is 19 cm. long, slim, slightly curved at the surface and has two blunt tips (similar to the Metzenbaum scissors). Next, we use a heavier pair, which is also curved and has blunt tips, for cutting through the parametrium (Fig. 6). For morcellations we use a pair of scissors that is similar to the parametrium scissors, the only difference being that it has one blunt and one pointed tip. The cervix is divided by using a strong pair of scissors which has two blunt tips (Fig. 7). For cutting around the cervix and dissecting the vaginal flaps in a mid-line colpotomy and

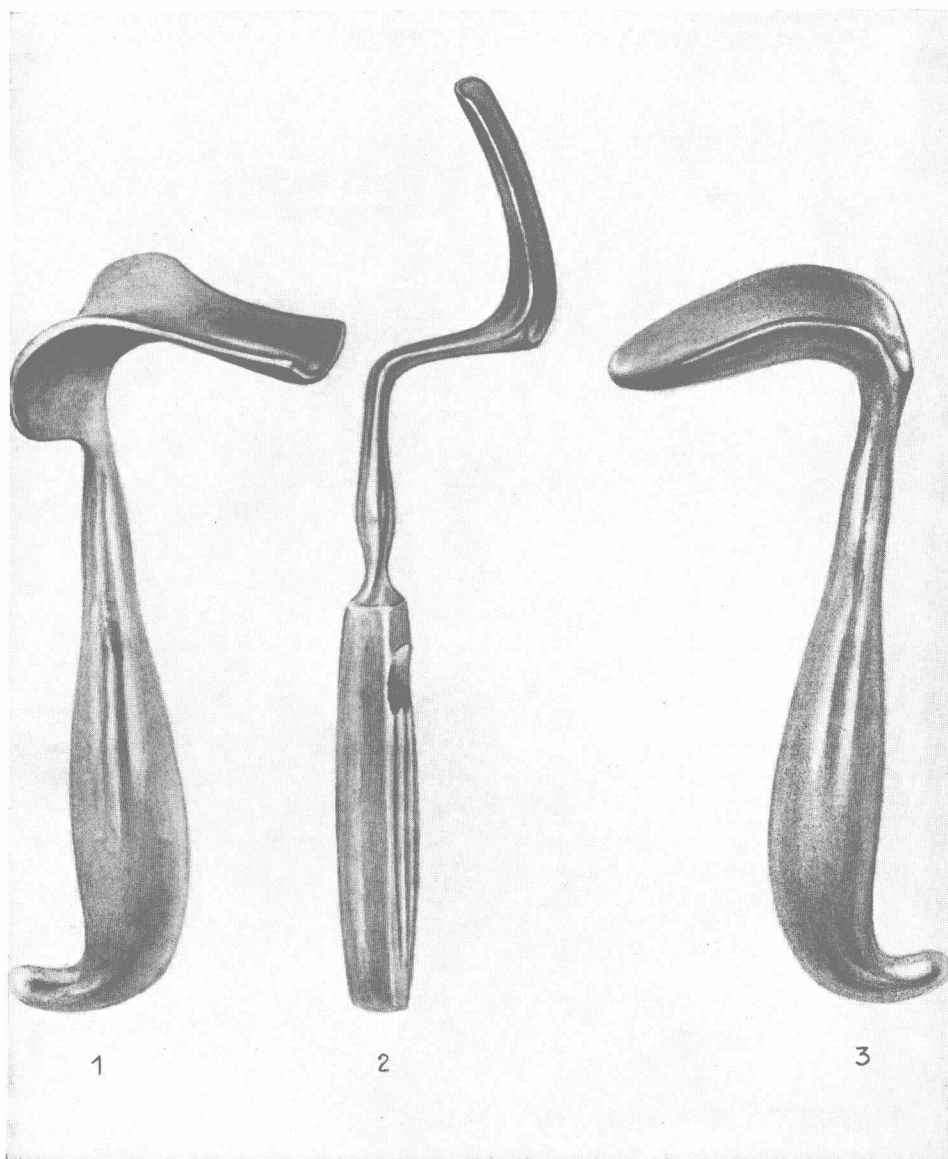


FIG. 1. Instruments: (1) Martin's speculum; (2) Breisky's speculum; (3) Sims's grooved speculum.

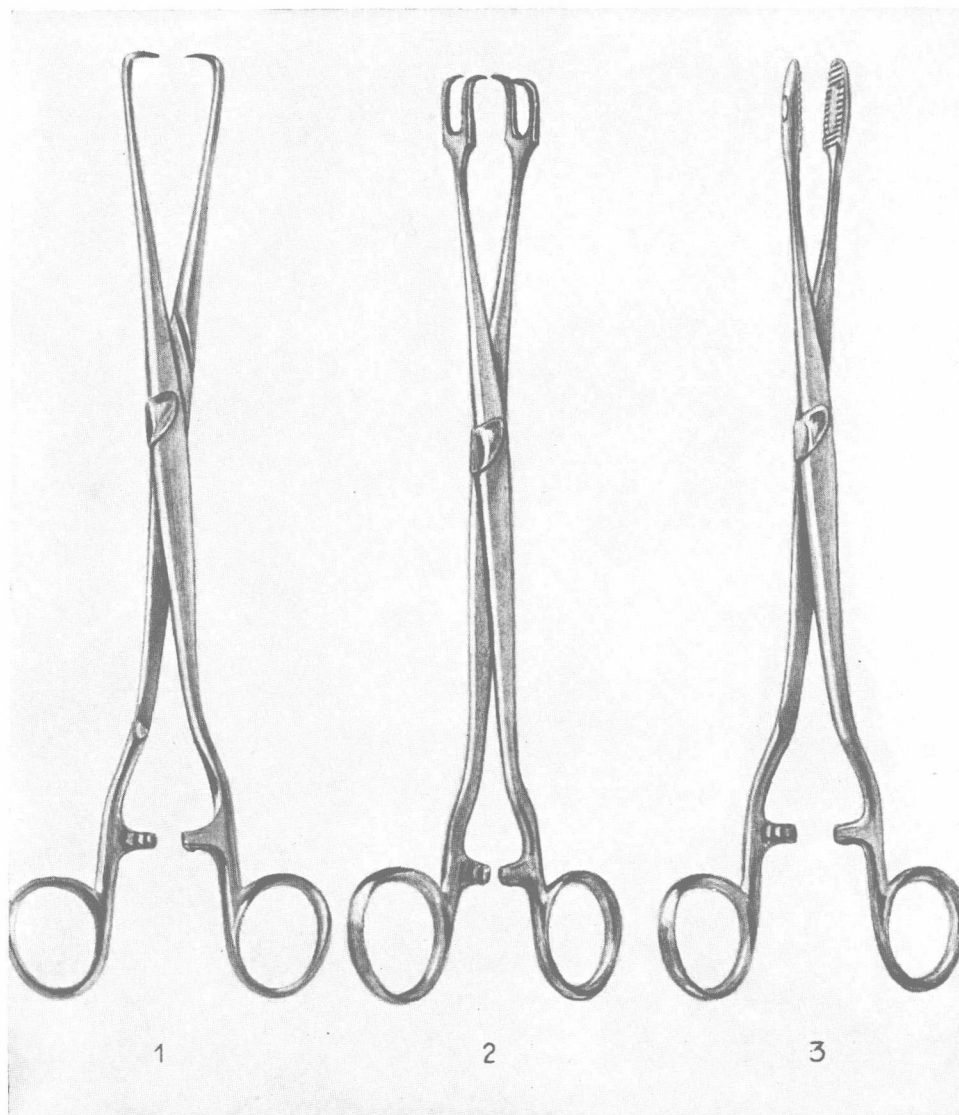


FIG. 2. Instruments: (1) Tenaculum; (2) Museux's or straight tenaculum forceps; (3) Sponge-holding forceps.

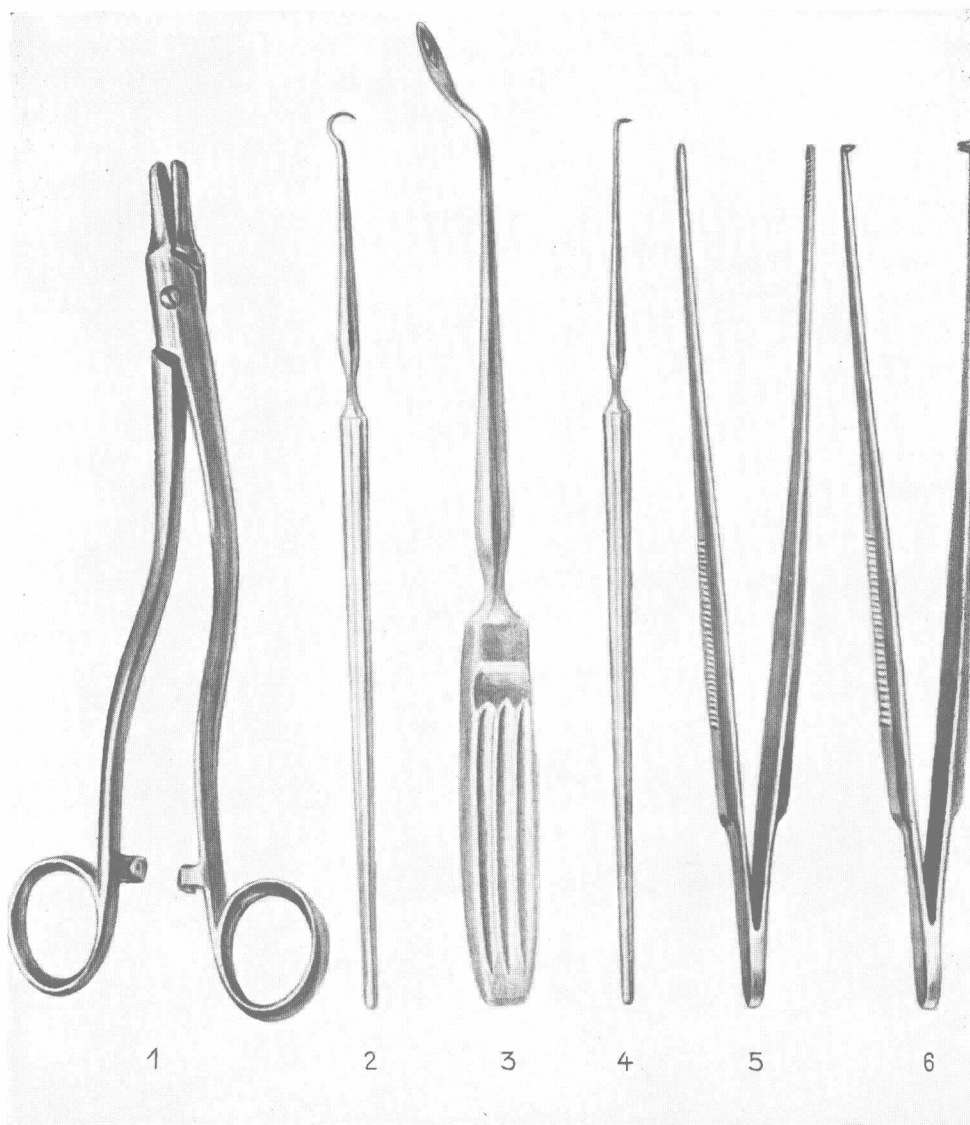


FIG. 3. Instruments: (1) Bozeman needle-holder; (2) Sharp tenaculum hook; (3) Deschamps needle; (4) Thread-catching hook; (5) Tissue forceps; (6) Dissecting forceps.

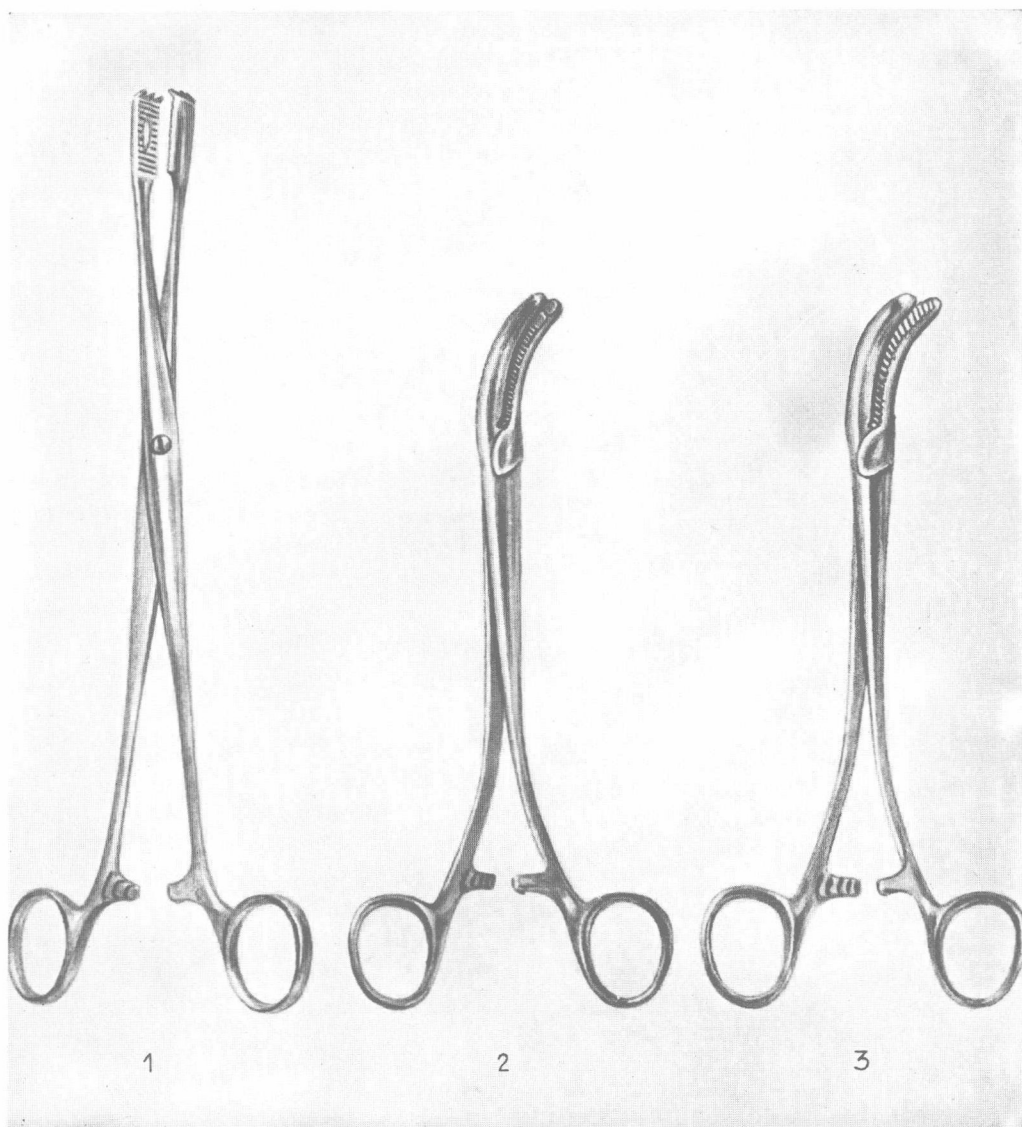


FIG. 4. Instruments: (1) Cyst-grasping forceps; (2) Curved clamp with hook; (3) Curved clamp without hook.

for puncturing small ovarian cysts we use fine, straight scalpels. For morcellations the Segond knife is in use; it is narrow, curved at the surface and double-edged (Fig. 5). In conservative vaginal operations, for bringing into view the body of the uterus, we use a fine hooked instrument which hardly damages the uterus (Fig. 3). For puncturing cysts we use a trocar of 28 cm. in length with a pointed stilet which is removed after puncturing (Fig. 8).

For sterilization of the tubes we use a crushing instrument devised by Madlener which resembles an enterotripter. It has curved blades (Fig. 8).

We drain the Douglas pouch with a T-formed rubber drain, built similarly to a mushroom indwelling catheter (Fig. 7).

Our suture material is almost exclusively catgut. Silk is used only for the fixation of the round ligaments in an operation for interposition.

In regard to sponges, we use very small ones in dissections and small square gauze sponges which are held in a sponge forceps; in addition, we use towels for protecting the intestines.

As the Logothetopoulos tampon we use a gauze veil which measures 50 cm. and a strip of gauze which is 10 cm. wide and 15 cm. long.

The preparation for the vaginal operation is very simple. The day preceding surgery, the patient is put on a fluid and soft diet, and that night an enema is

given so that the intestines will be empty. If the enema is given too close to the time of the operation it might be expelled during surgery, thus interfering with asepsis. No food is allowed the patient on the day of the operation. Also, the hair on the pubis is shaved the night before the operation. Next, the patient receives a tablet of Veronal (0.5 Gm.), and the same dose is repeated the following morning. An hour before the operation an injection of Pantopon (0.02 Gm.) and atropine (0.0005 Gm.) or an ampule containing scopolamine (0.001 Gm.), Eucodal (0.02 Gm.) and Ephetonin (0.05 Gm.) is given.

For anesthesia we use ether or an intravenous narcotic (Evipan or Pentothal Sodium).

The patient is put in the lithotomy position and is catheterized on the table. The external genitalia are scrubbed with soap and water. The vagina is irrigated with a disinfecting solution and wiped clean with a sponge on a holder. Next, the genitalia are cleaned once more, this time with corrosive mercury and alcohol. The whole operative field is covered high up to the mons veneris and down to the thigh with sterile sheets and towels. The surgeon sits in front of the patient, with the first assistant on his right and the second on his left side. The instrument nurse takes her stand by the instrument table to the right of the surgeon.

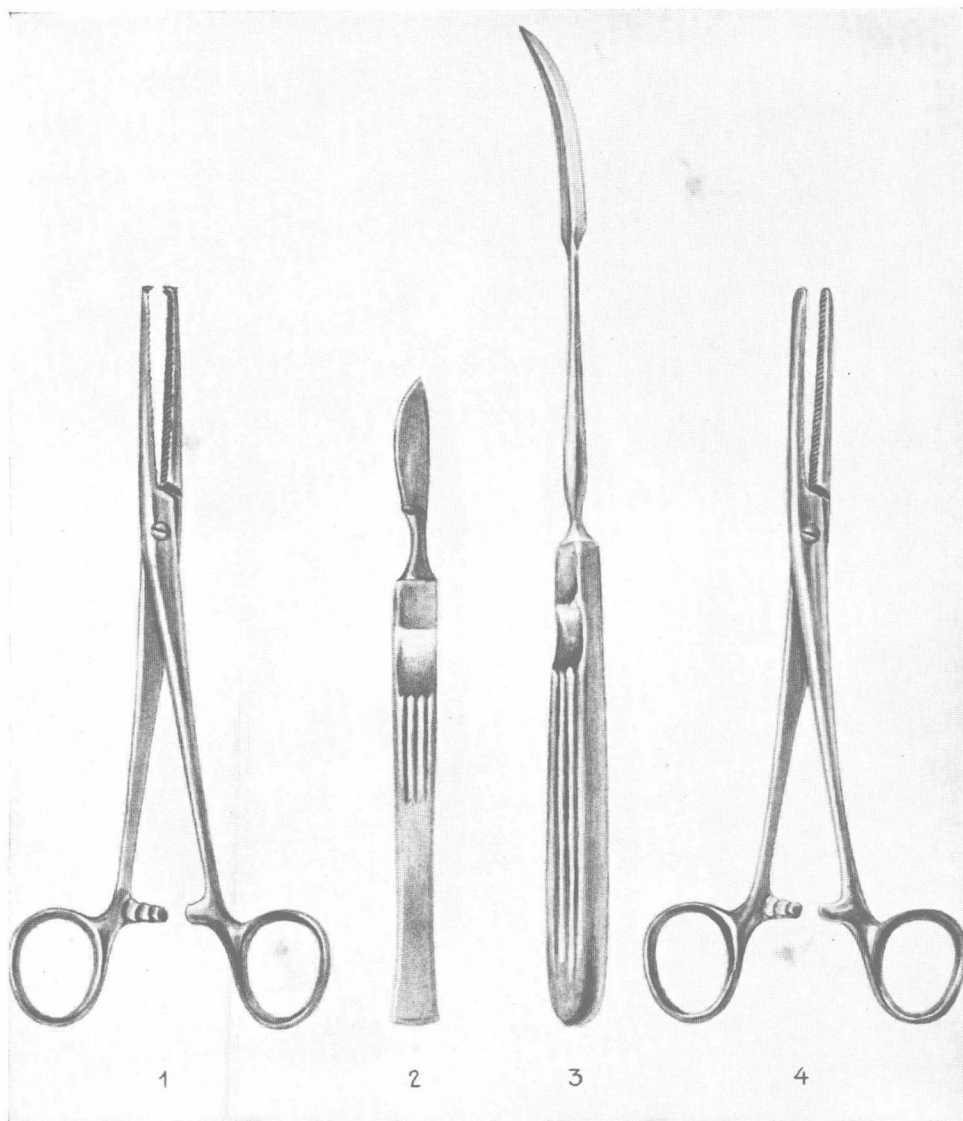


FIG. 5. Instruments: (1) Kocher clamp, straight; (2) Scalpel; (3) Morcellation knife; (4) Straight forceps without tooth (Pean).

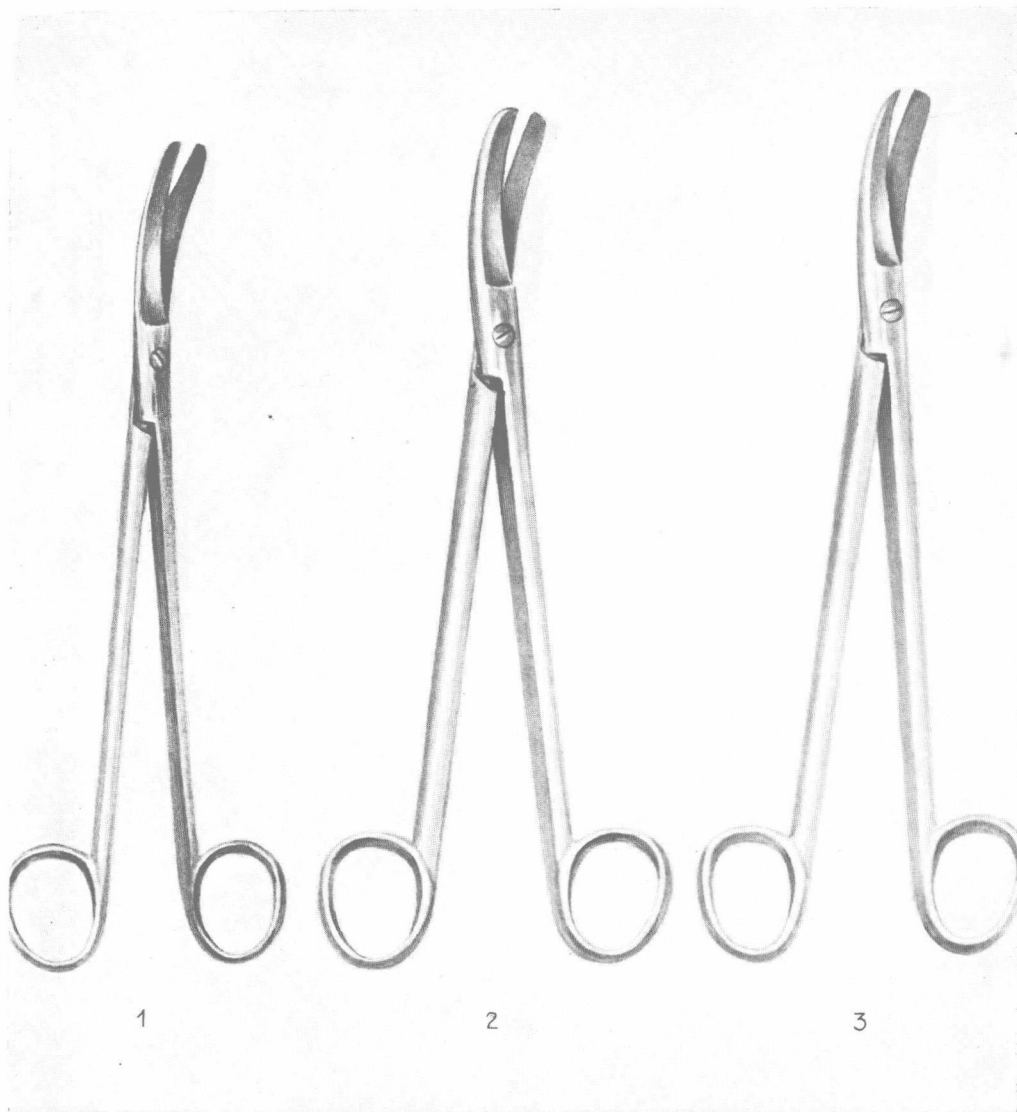


FIG. 6. Instruments: (1) Dissecting scissors (Metzenbaum); (2) Parametria scissors; (3) Morcellation scissors, curved.

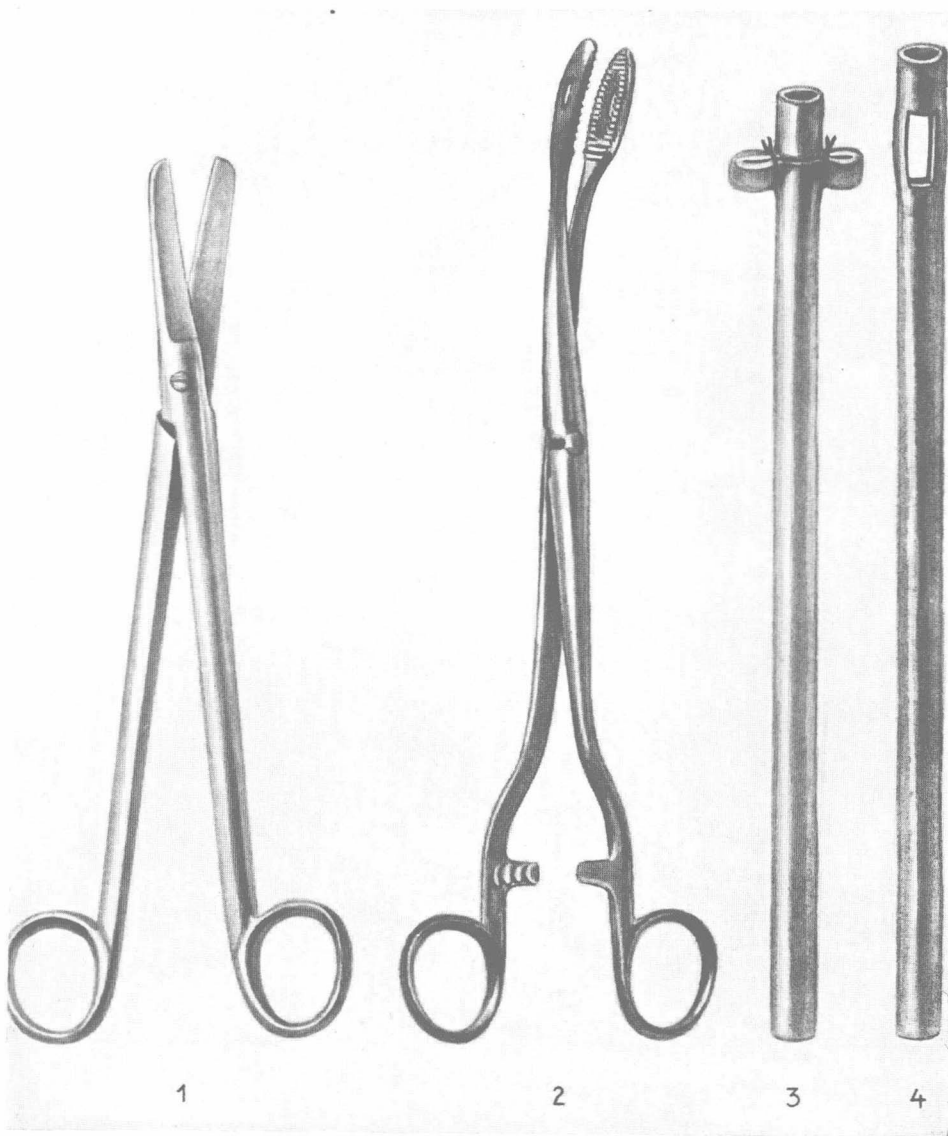


FIG. 7. Instruments: (1) Mayo scissors, straight; (2) Sponge-holding forceps, curved; (3) Rubber "T" drain for Douglas drainage; (4) Rubber "T" drain in preparation.