PHYSICIANS SHOULD FAMILIARIZE THEMSELVES WITH SIMPLER METHODS FOR VAGINAL HYSTERECTOMY - THE TEN STEP VAGINAL HYSTERECTOMY - "NOTHING LACKING, NOTHING SUPERFLUOUS"

M. Stark, S. Gerli, G.C. di Renzo

New European Surgical Academy (NESA), Division of Ob/Gyn; "HELIOS Hospitals Group", 2Department of Ob/Gyn, Monteluce Hospital, University of Perugia, Italy, 3Department of Ob/Gyn, Monteluce Hospital, University of Perugia, Italy, New European Surgical Academy (NESA)

Due to quick recovery, lack of abdominal scar and simplicity, vaginal hysterectomy should always be considered when hysterectomy is indicated. In order to find out whether vaginal hysterectomies can still be optimised, the Porges (1), Falk (2), von Theobald (3), Heaney (4), Joel-Cohen (5) and the Chicago (6) methods were re-evaluated. All common steps in these methods were defined and analysed, the unnecessary excluded, and the way of their performance revised. The result is the “Ten Step Vaginal Hysterectomy” which is easy to learn, perform and teach.

Method description: The revised operation steps are as follows:

1) Incision of the vaginal wall: The way in which the incision of the vaginal wall should be performed depends entirely on the individual anatomical conditions. Traditionally, most described methods start, where prolapse exists, with circumcision around the cervix, extension towards the orificium urethrae externum and separation of the vaginal wall laterally toward the bladder. This approach has already been challenged by Joel-Cohen (5). He did the separation the other way around, starting it under the orificium urethrae externum and then around the cervix. Where prolapse exists, the incision will be drop-like. We find this approach easy and logical in prolapsed and non-prolapsed uteri. After pulling the “Tip” of the drop down, the vaginal wall should be separated laterally using surgical forceps.

2) Detaching bladder from the uterus: The border between the anterior wall of the uterus and the bladder must be identified (curved scissors are sometimes needed). Then, by pushing the bladder up close to the uterus, it will separate from the uterus until the anterior peritoneum is exposed. Opening the anterior peritoneum at that stage is not necessary and not recommended because it disturbs the dynamics of the operation and interrupts its continuity.

3) Opening posterior peritoneum: The tenaculi holding the uterus should be pulled up and the peritoneum should be grasped with surgical forceps and opened with scissors. The scissors are then introduced into the Douglas cavity, and holding each blade with one hand, pulled out open, so that the back sides of the blades expose the insertions of the sacrouterine ligaments (7).

4) Dissection of the lower part of the uterus: The sacrouterine ligaments and the paracervical tissues are clamped together. This is done by a designed manoeuvre: one blade of an open clamp is placed under the insertion of the sacrouterine ligament, the instrument rotates towards the uterus while the uterus is being contra-rotated. Both anatomical structures are included between the blades of the instrument while it is being closed. Both structures, the relatively bloodless sacrouterine ligament and the paracervical tissues, are cut and ligated leaving the suture material in its full length. This is repeated on the contralateral side. In most of the traditional surgical methods for vaginal hysterectomy, both elements will anyway be sutured to each other at the end of the operation.

In patients without prolapsed uterus, this manoeuvre will instantly produce a significant descensus.

5) Cutting and ligating the uterine arteries: Both uterine arteries are clamped, cut and ligated.

6) Opening the anterior peritoneum: After both uterine arteries have been cut and ligated, the uterus is pulled down and two fingers are introduced behind the fundus to lift the anterior peritoneum which can be opened under vision with scissors. The access to the fundus in a myomatous uterus is sometimes difficult. In such a case, the surgeon should hold both tenaculi with his left hand while continuously and slowly pull them down with rotating movements. Morcellation of the uterus, which is safe and facilitates the removal of enlarged uteri, may be performed when needed (8).

7) Dissection of the upper part of the uterus (and appendages): The round and ovarian ligaments and the blood vessels are clamped together and ligated. The ligature should be placed as lateral as possible away from the clamp, leaving the ovarian ligaments as long as
possible. The uterus is cut away with scissors medial to the instrument. A transfiction suture is placed between the clamp and the ligature keeping the full length of the suture material. The ligature, which is placed before and lateral to the transfiction, will prevent bleeding, should this transfiction suture slip away or tear by traction. The same procedure should be done on the contralateral side.

8) The “non stage” - leaving the peritoneum open: In 1980, Harold Ellis showed that closing the peritoneum at the end of abdominal surgery is not necessary (9). It was also shown that the peritoneal closure is not necessary for vaginal hysterectomy (10; 11). The British Royal College of Obstetrics and Gynaecology recommended in its guideline No. 15 from July 2002 to leave peritoneum open (12).

If an enterocele has to be prevented or repaired, it should be done before continuing the operation (13).

9) Reconstruction of the pelvic floor: The left and right sacrouterine ligaments with the paracervical tissues as well as the ovarian ligaments are ligated to each other respectively.

10) Closing the vaginal wall: The vaginal wall is sutured continuously.

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<tr>
<th></th>
<th>HVH (n = 52)</th>
<th>TSVH (n = 44)</th>
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<tbody>
<tr>
<td>Age (25th-75th percentile)</td>
<td>61,6 (46-75,9)</td>
<td>66,2 (53-77)</td>
</tr>
<tr>
<td>Operation time (min)</td>
<td>52,3 (23,3-90)</td>
<td>34,1 (20,5-50)*</td>
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<tr>
<td>Pain killers needed (h)</td>
<td>48,7 (19-86)</td>
<td>29,6 (8-75)*</td>
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<td>Average hospital stay (range)</td>
<td>5,8 (4-8)</td>
<td>5,9 (4-8)</td>
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• Statistically significant difference (P < 0.05)

The data was stored in a data base. The evaluation was done using SPSS for Windows. Frequencies and standard differences were calculated as mean variations. Chi square analysis was used.

In a study in 2 hospitals, 96 women with prolapse II or III underwent vaginal hysterectomy, 52 with the Heaney method and 44 with the Ten Step Vaginal Hysterectomy. The women undergoing the Ten Step Vaginal Hysterectomy had a significantly shorter operation time and shorter requirement of analgesics (table 1).

The "Ten Step Vaginal Hysterectomy", unlike most traditional operations which are the result of "trial and error" experience, is a critically analysed and designed operation, where only the essential steps are being performed. More randomized prospective studies will be needed to evaluate the late outcome of this method.

References:


