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Transvaginal Hysterectomy: Rationale and Surgical Approach

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Abdominal hysterectomy is performed in the United States at a 3:1 ratio over vaginal hysterectomy, despite evidence that vaginal hysterectomy offers advantages over abdominal hysterectomy with regard to operative time, complication rates, recovery, return to daily activities, and overall costs of treatment. In fact, the predominance of the abdominal approach may be based on factors other than clinical considerations, including resident training, use of limited or obsolete guidelines, greater third-party compensation for abdominal procedures, a presumption rather than a confirmation that pathology exists that contraindicates a vaginal approach, and misconceptions about the safety and cost of vaginal hysterectomy. A number of studies spanning several years demonstrate that the use of more systematic guidelines for selecting the route of hysterectomy results in a major shift toward the vaginal approach. Evidence also shows that transvaginal hysterectomy is both feasible and optimum for types of patients who have long been considered inappropriate candidates for the vaginal route. New instrumentation facilitates the vaginal approach and contributes to improved hemostasis and decreased operative time. Included here is a step-by-step approach to determining appropriate candidates for the vaginal approach via assessment of access, uterus size, and extent of pathology. (Obstet Gynecol 2004;103:1321–5.

Approximately 600,000 hysterectomies are performed in the United States annually, with the current ratio of abdominal procedures to vaginal procedures at about 3:1.[1] This lopsided ratio invites scrutiny when one considers that vaginal hysterectomy is associated with decreased complications, shorter hospital stay and convalescence, reduced hospital charges, and better quality-of-life outcomes,[2–9] as well as cosmetic advantages. Factors responsible for the predominance of abdominal hysterectomy may include surgeon experience and practice styles, absence of clear guidelines for selecting a surgical route, lack of patient knowledge about the options, and inappropriate decision making.[10] Rather than apply principles of surgical decision making and therapeutic management according to evidence-based guidelines, operative decisions more typically reflect physician, not patient, values.

The roots of preference for abdominal hysterectomy may lie in resident training, which often does not provide enough exposure to complex vaginal procedures.[11] Moreover, the abdominal approach is easier than the vaginal approach for faculty to teach; it allows the instructor to demonstrate the procedure for the resident while standing across the table, whereas the vaginal approach requires instruction between the patient's legs in sometimes awkward or uncomfortable positions for the instructor.

The fact that physician attitude fostered in training may dominate clinical considerations is made clear by a number of revealing studies.[12,13] In one study of hysterectomy practice in a 5-year period at a district general hospital in the United Kingdom,[12] a mandate was issued to carry out as many hysterectomies as possible by the vaginal route. In the 5 years after the mandate, the percentage of abdominal and vaginal procedures changed from 68% and 32% to 5% and 95%, respectively. If gynecologic surgeons in the United Kingdom can successfully achieve such a conversion, it is logical to assume that U.S. surgeons can do likewise. In fact, a U.S. center has reported a similar transformation.[1] Other studies show that physicians can perform a vaginal hysterectomy in 77% to 89% of their patients.[2,14]

By compensating surgeons more for abdominal hysterectomy, managed care organizations also have been a roadblock to wider use of the transvaginal approach—an ironic twist, considering that the transvaginal approach is associated with lower overall medical costs. This bias may simply be due to a longer history or experience with the abdominal approach and misconceptions about safety and cost. The cost benefits of the transvaginal approach are demonstrated in a study of 1,427 women who had hysterectomies at a single institution in a 5-year period. Median charges documented for laparoscopy-assisted vaginal hysterectomies and abdominal hysterectomies in this study were 71% and 35% higher than for vaginal hysterectomies, respectively ($P < .001$).[15]

Many surgeons, as well as managed care administrators, may not be aware of how vaginal hysterectomy can be achieved more efficaciously with modern surgical instrumentation, such as the endoscopic linear cutter, a device

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duce the size of the uterus preoperatively.[30,31] Although experienced surgeons have reported success with transvaginal procedures for uteri up to 1,200 g,[2,32] the average surgeon should consider an abdominal approach for uteri larger than 280 g.

To identify patients whose pathology extends beyond the confines of the uterus, the surgeon should determine the location and severity of the pathologic condition. Laparoscopic evaluation is most useful to help confirm whether the characteristics of the pathology preclude a vaginal approach. It is important to base the decision on intraoperative documentation, not just clinical history and pelvic examination.[10] It should be noted that, in the majority of cases of benign uterine disease, vaginal hysterectomy is possible without laparoscopic assistance; use of other complex maneuvers to complete the hysterectomy laparoscopically in these cases adds unnecessary time, cost, and risk of complications to the procedure.[22]

Only clinicians with training and experience in performing the vaginal approach, of course, should attempt it. The route of hysterectomy should be dictated by the clinical situation, not by a particular practitioner's inability to perform the preferred procedure. If evidence-based guidelines clearly support the use of vaginal hysterectomy in an individual patient, the physician who is unwilling or unable to perform vaginal hysterectomy should consider referring the patient to a colleague who is properly experienced in the vaginal approach.

The advantages of vaginal hysterectomy over abdominal hysterectomy in terms of clinical outcomes and costs are well documented, and long-accepted contraindications to vaginal hysterectomy may not be entirely justified. Among women who require hysterectomy, studies suggest that the vaginal approach is underused in the United States. An increase in the percentage of hysterectomy patients treated with a vaginal approach can be expected if surgeons follow the Society of Pelvic Reconstructive Surgeons guidelines for determining the route and method of hysterectomy. Modern surgical instrumentation should be used to enhance surgeon comfort level, reduce complications, expedite vaginal procedures, and reduce costs.

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