Choosing the Route of Hysterectomy for Benign Disease

Abstract: Hysterectomies are performed vaginally, abdominally, or with laparoscopic or robotic assistance. When choosing the route and method of hysterectomy, the physician should take into consideration how the procedure may be performed most safely and cost-effectively to fulfill the medical needs of the patient. Evidence demonstrates that, in general, vaginal hysterectomy is associated with better outcomes and fewer complications than laparoscopic or abdominal hysterectomy. When it is not feasible to perform a vaginal hysterectomy, the surgeon must choose between laparoscopic hysterectomy, robot-assisted hysterectomy, or abdominal hysterectomy. Experience with robot-assisted hysterectomy is limited at this time; more data are necessary to determine its role in the performance of hysterectomy. The decision to electively perform a salpingo-oophorectomy should not be influenced by the chosen route of hysterectomy and is not a contraindication to performing a vaginal hysterectomy.
defined to the uterus (no adnexal pathology or known or suspected adhesions) have been proposed as selection criteria for vaginal hysterectomy (6). In a randomized trial, when residents followed specific guidelines for selection and performance of hysterectomy, the percentage of vaginal hysterectomies for benign conditions was more than 90%. Uterine morcellation and other uterine size reduction techniques were only necessary in 11% of cases (7).

Extrauterine disease such as adnexal pathology, severe endometriosis, or adhesions may preclude vaginal hysterectomy. However, in these cases, it may be prudent to visualize the pelvis with a laparoscope before deciding on the route of hysterectomy.

The decision to electively perform a salpingo-oophorectomy should not be influenced by the chosen route of hysterectomy and is not a contraindication to performing a vaginal hysterectomy. The success of removing the ovaries vaginally varies greatly and is reported to range from 65–97.5% (8–10). In a randomized trial that compared vaginal hysterectomy with bilateral salpingo-oophorectomy to laparoscopically assisted vaginal hysterectomy with bilateral salpingo-oophorectomy, there were more complications and increased operating time with the laparoscopic approach (11).

Outcomes and Complication Rates
Evidence demonstrates that, in general, vaginal hysterectomy is associated with better outcomes and fewer complications. A Cochrane review of 34 randomized trials of abdominal hysterectomy, laparoscopic hysterectomy, and vaginal hysterectomy, including 4,495 patients, concluded that vaginal hysterectomy has the best outcomes of these three routes. The review also found that when a vaginal hysterectomy is not possible, laparoscopic hysterectomy has advantages (including faster return to normal activity, shorter duration of hospital stays, lower intraoperative blood loss, and fewer wound infections) over abdominal hysterectomy; however, laparoscopic surgery also is associated with longer operating time and higher rates of urinary tract injury (2) (see Box 1).

The authors of one study compared vaginal and abdominal hysterectomy and found that abdominal hysterectomy was associated with 1.7 times more complications, 1.9 times more febrile morbidity, and 2.1 times more blood transfusions than vaginal hysterectomy (12). In another study, when women with enlarged uteri (200–1,300 gm) were randomly assigned surgery by the vaginal or abdominal route, the vaginal procedure resulted in decreased operative time, less febrile morbidity, reduced postoperative narcotic use, and shorter hospital stay (13).

When it is not feasible to perform a vaginal hysterectomy, the surgeon must choose between laparoscopic hysterectomy, robot-assisted hysterectomy, or abdominal hysterectomy. Experience with robot-assisted hysterectomy for benign conditions is currently limited (14). Abdominal hysterectomy is also an important surgical procedure, especially when the vaginal or laparoscopic approach is not appropriate to manage the patient’s clinical situation or when facilities cannot support a specific procedure.

Other Considerations
Cost analysis has consistently demonstrated that vaginal hysterectomy is the most cost-effective route (15, 16). Patient preference may influence the route by which the hysterectomy is performed (17). For example, despite the evidence that there is no significant difference in outcome between a supracervical hysterectomy and a total hysterectomy (18), some patients may choose a supracervical hysterectomy. In these cases, a laparoscopic or open abdominal approach is most appropriate.

Conclusions
Listed as follows are the conclusions of the ACOG Committee on Gynecologic Practice:

• Vaginal hysterectomy is the approach of choice whenever feasible, based on its well-documented advantages and lower complication rates.

• The choice of whether to perform prophylactic oophorectomy at the time of hysterectomy is based on the patient’s age, risk factors, and informed wishes, but not on the route of hysterectomy.
• Laparoscopic hysterectomy is an alternative to abdominal hysterectomy for those patients in whom a vaginal hysterectomy is not indicated or feasible.

• Experience with robot-assisted hysterectomy is limited at this time; more data are necessary to determine its role in the performance of hysterectomy.

References


