



Special Article

AAGL Position Statement: Route of Hysterectomy to Treat Benign Uterine Disease

AAGL *ADVANCING MINIMALLY INVASIVE GYNECOLOGY WORLDWIDE*

Background

Hysterectomy is usually performed for the management of a number of benign disorders of the female pelvis when less radical interventions are unsuccessful, not tolerated, or unacceptable to the patient or felt by the physician to be inappropriate for the treatment of the patient's clinical condition. At least through 2005, approximately 600 000 such procedures were performed in the United States annually [1], with more than two-thirds performed through an abdominal incision despite the existence of the less invasive vaginal and laparoscopic approaches, which are associated with reduced morbidity and faster return to normal activities.

Routes of Hysterectomy

Vaginal hysterectomy (VH) and laparoscopic hysterectomy (LH), where feasible, are associated with low surgical risks and can be performed with a short hospital stay [2,3]. In many instances, both VH and LH can be safely accomplished as an outpatient procedure [4,5]. Because abdominal hysterectomy (AH) requires a relatively large abdominal incision, it is associated with a number of disadvantages compared with either VH or LH that are largely related to abdominal wound infections, relatively prolonged institutional stay, and delayed return to normal activities [6–9].

A number of clinical situations considered as contraindications to LH seem not to have merit when subjected to critical analysis. These include obesity, in which at least some evidence suggests that, aside from longer operative times,

safety and efficacy are similar for obese and nonobese patients [10], and previous cesarean section, which is associated with an increased risk of bladder injury with hysterectomy in general [11,12]. While LH may be associated with an increased risk of cystotomy compared with other techniques [12], available evidence suggests that the overall risk is low and that previous cesarean section should not be seen as a contraindication to either a vaginal or laparoscopic approach [13,14]. For a number of surgeons, VH is both feasible and safe even in the presence of a large uterus [15]. However, when VH is not feasible because of the uterine size or other coexisting disease or surgical considerations, LH seems to be a safe alternative that preserves most of the advantages of VH over AH [9,16,17].

Evidence exists that direct costs associated with both VH and LH are less than those for AH, although depending on the instrumentation used, institutional costs of LH may be greater than for VH [18,19]. There is also high-quality evidence from a number of randomized trials demonstrating that the indirect costs of hysterectomy are reduced by 50% when LH is compared with AH [20]. The value of laparoscopic hysterectomy has also been demonstrated in a number of oncologic studies that similarly demonstrate reduced morbidity compared with the abdominal approach without compromise of clinical outcomes for both cervical [21] and endometrial carcinoma [22].

It has been demonstrated in some countries that as few as 24% of hysterectomies are performed abdominally [23,24]. Given the advantages that VH and LH offer to women, their families, their employers, and the health care system in general, it seems desirable to optimize their application in women requiring hysterectomy because of benign uterine conditions. Abdominal hysterectomy should be reserved for the minority of women for whom a laparoscopic or vaginal approach is not appropriate. These circumstances are not common, and may include the following situations.

For LH:

1. Patients with medical conditions, such as cardiopulmonary disease, where the risks of either general anesthesia

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or the increased intraperitoneal pressure associated with laparoscopy are deemed unacceptable.

- Where morcellation is known or likely to be required and uterine malignancy is either known or suspected.

For both LH and VH:

- Hysterectomy is indicated but there is no access to the surgeons or facilities required for VH or LH and referral is not feasible.
- Circumstances where anatomy is so distorted by uterine disease or adhesions that a vaginal or laparoscopic approach is not deemed safe or reasonable by individuals with recognized expertise in either VH or LH techniques.

When procedures are required to treat gynecologic disorders, the AAGL is committed to the principles of informed patient choice and provision of minimally invasive options. When hysterectomy is necessary, the demonstrated safety, efficacy, and cost-effectiveness of VH and LH mandate that they be the procedures of choice. When hysterectomy is performed without laparotomy, early institutional discharge is feasible and safe, in many cases within the first 24 hours [4,25–28].

Conclusion

It is the position of the AAGL that most hysterectomies for benign disease should be performed either vaginally or laparoscopically and that continued efforts should be taken to facilitate these approaches. Surgeons without the requisite training and skills required for the safe performance of VH or LH should enlist the aid of colleagues who do or should refer patients requiring hysterectomy to such individuals for their surgical care.

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Other Reading

Einarsson JI, Matteson KA, Schulkin J, et al. Minimally invasive hysterectomies: a survey on attitudes and barriers among practicing gynecologists. *J Minim Invasive Gynecol.* 2010;17:167–175.

A survey of gynecologists suggests that while they would overwhelmingly prefer VH or LH for themselves or their spouses, there exist a number of barriers to achieving this goal for their patients.

ACOG Committee Opinion No. 444. Choosing the route of hysterectomy for benign disease. *Obstet Gynecol.* 2009;114:1156–1158.

The American College of Obstetricians and Gynecologists supports the notion that VH and LH offer substantial advantages over AH.

Appendix

Studies were reviewed and evaluated for quality according to the method outlined by the US Preventive Services Task Force.

Class I	Evidence obtained from at least 1 properly designed randomized controlled trial.
Class II	Evidence obtained from nonrandomized clinical evaluation.
II-1	Evidence obtained from well-designed controlled trials without randomization.
II-2	Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than 1 center or research center.
II-3	Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.
Class III	Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.
