Robert L. Barbieri, MD
Editor-in-Chief

Minimally invasive hysterectomy: We are at the tipping point

We could safely double the percentage of laparoscopic operations, but only if surgeons and hospitals are ready for change

A 52-year-old G0 woman has menorrhagia, anemia, a 10-week size myomatous uterus, a normal office hysteroscopy, and secretory endometrium on endometrial biopsy. Hormone therapy has not controlled her bleeding, and she is scheduled for a hysterectomy. She asks, "I was looking on the Internet, and I am wondering, can I have my hysterectomy performed through a laparoscope?"

Such conversations are only one sign that we are at the tipping point. Changes in technology, surgical techniques, and patient preferences have led us to a critical juncture, beyond which the implementation of minimally invasive surgical approaches is likely to accelerate.

Hysterectomy for noncancer indications is one of the most common operations in the developed world. In the United States in 1997, approximately 6 of every 1,000 women had a hysterectomy, for a total of about 598,000 procedures.

The 3 most common approaches are abdominal, vaginal, and laparoscopic. Laparoscopic hysterectomy can be further subdivided into at least 3 types: total laparoscopic, laparoscopic supracervical, and laparoscopically assisted vaginal hysterectomy.

Momentum is building

Comprehensive surveys indicate that in the US between 1990 and 1997, the number of laparoscopic hysterectomies increased 33-fold, abdominal hysterectomies decreased, and the rate of vaginal hysterectomies remained stable.[1] Trends in Finland are similar to those observed in the United States, except that more laparoscopic hysterectomy procedures were reported in Finland.[2]

Positives and negatives

Most surgeons and patients regard abdominal hysterectomy as the most invasive route, and laparoscopic and vaginal approaches as less invasive. In most studies, laparoscopic and vaginal approaches are associated with shorter hospital stays, less self-reported postoperative pain, and shorter recovery times, compared to abdominal hysterectomy.[3–5]

The main disadvantages of laparo-

CONTINUED

Number and percentage of hysterectomies, by type of approach

COUNTRY	YEAR	HYSTERECTOMIES (N)	TYPE OF APPROACH (%)			
			ABDOMINAL	VAGINAL	LAPAROSCOPIC	MINIMALLY "INVASIVE"
US[1]	1990	549,323	75.3	24.4	0.3	25
	1997	598,529	66.8	23.3	9.9	33
Finland[2]	1996	10,110	58	18	24	42

INSTANT POLL

What is your opinion?

At OBG Management, we value your perspective on this question:

What is a practical target for hysterectomy approaches other than abdominal?

- ❑ 40%
- ❑ 50%
- ❑ 60%
- ❑ 70%
- ❑ Other

Respond via INSTANT POLL, at www.obgmanagement.com

We will publish a summary of responses in an upcoming issue.

scopic hysterectomy compared with abdominal hysterectomy are that it takes more operative time, uses more operating room equipment (some of which is "single-use" equipment, which can be expensive), and requires specialized surgical skills. In addition, laparoscopic hysterectomy tends to be associated with a few more urinary tract injuries than abdominal hysterectomy.[2]

Patients clearly want physicians to use safe and minimally invasive approaches.

How can we accentuate the positive?

What could help gynecologic surgeons increase the number of cases performed using minimally invasive techniques?

- **Surgeons.** One approach would be to ensure that every major gynecology service has at least 1 gynecologic surgeon who is facile with total laparoscopic hysterectomy, and who performs more than 25 procedures per year. Surgeons experienced in minimally invasive procedures could assist less-experienced surgeons in cases that are suitable for laparoscopic hysterectomy. Similarly, ensuring that every hospital has staff members who are comfortable with difficult vaginal hysterectomy procedures would help ensure that a maximal number of appropriate procedures would be completed via this minimally invasive route.
- **Operating rooms.** Each hospital would need to make a commitment that an operating room properly equipped for minimally invasive surgery with experienced and well-trained operating room technicians is available to the gynecology staff.
- **Additional training** for all residents and practicing gynecologists would also increase the rate at which minimally invasive approaches are used for hysterectomy.

Based on experience in the European Union, we in the United States could probably safely double the percentage of hysterectomy cases performed with laparoscopic techniques. This would reduce hospital stays and postoperative pain for the patient, and allow patients to return to full activities as soon as possible.

As in the case above, gynecologists will be faced more frequently with the question, "Doctor, I was wondering if I can have my hysterectomy performed through a laparoscope?"

What do you think?

As technology develops and surgical skills improve, what is a practical target for hysterectomy approaches other than abdominal? 40%, 50%, 60%, 70%?

What methods should we use to increase the percentage of laparoscopic and vaginal procedures and decrease the percentage of abdominal procedures?

Email your comments to us at obg@dowdenhealth.com.

Or, compare your views with those of colleagues by voting in the *Instant Poll*, on our Web site: www.obgmanagement.com.

obg@dowdenhealth.com

REFERENCES

1. Farquhar CM, Steiner CA. Hysterectomy rates in the United States 1990–1997. Obstet Gynecol. 2002: 99:229–234.
2. Makinen J, Johansson J, Tomas C, et al. Morbidity of 10,110 hysterectomies by type of approach. Hum Reprod. 2001;16:1473–1478.
3. Olsson JH, Ellstrom M, Hahlin M. A randomized prospective trial comparing laparoscopic and abdominal hysterectomy. Br J Obstet Gynecol. 1996; 103:345–350.
4. Ottoson C, Lingman G, Ottosen L. Three methods for hysterectomy: a randomized, prospective study of short-term outcome. Br J Obstet Gynecol. 2000; 107:1380–1385.
5. Marana R, Busacca M, Zupi E, Garcea N, Paparella P, Catalano GF. Laparoscopically assisted vaginal hysterectomy versus total abdominal hysterectomy: a prospective, randomized, multicenter study. Am J Obstet Gynecol. 1999;180:270–275.