Laparoscopic antireflux surgery: What is enough?

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Symptomatic gastroesophageal reflux disease (GERD) is a common problem affecting a substantial proportion of the population at least once a week. It is estimated that at least 20% of adult Americans have weekly symptoms of heartburn.[1] Medical treatment, directed at reducing the volume and acid concentration of the gastric juice, thus altering the refluxate, is effective. Unfortunately, once medication is stopped, up to 90% of patients with significant symptoms of reflux will have recurrence within a very short time. This implies that for patients with daily or complicated reflux symptoms, lifelong continuous medical treatment, usually with proton pump inhibitors is the only effective medical treatment.[2,3] In contrast, surgical treatments aim to restore the antireflux mechanism, thus diminishing reflux without affecting gastric secretion or the composition of the refluxate.

GERD is a process that has only a small impact on morbidity and mortality but a substantial impact on the patient's quality of life. Surgery has been shown to have a profound benefit on the symptoms of reflux and on quality of life.[4,5] Moreover, the effectiveness of antireflux surgery at healing esophagitis, reducing reflux and restoring an effective physiologic antireflux mechanism has been well documented by endoscopy and physiologic measurements, including 24-hour pH studies and manometry.[6,7] Surgery has also been shown to be cost-effective compared with long-term continuous treatment with proton pump inhibitors.[8]

The application of laparoscopic surgery to the treatment of GERD has been particularly well documented in the literature. A number of well-designed prospective studies have established its efficacy with outcomes that are comparable or superior to open surgical approaches but with shorter hospitalization and convalescence. Costs related to hospitalization are reduced, but these benefits are offset in part by longer time in the operating room and by the costs of instrumentation, especially disposables.[9,10]

The article by McMahon and Mercer in this issue of the Journal (pages 48 to 52) provides data from 1992 to 1996 regarding the number of antireflux operations done in Canada, broken down by year, region and whether the procedure was open or endoscopic, through the chest or the abdomen. Up to 1996, there was no explosion in the use of laparoscopic antireflux surgery, although in those regions where laparoscopic antireflux surgery is widely available, there has been a modest increase. There are wide discrepancies by province and region in both total numbers of procedures and laparoscopic procedures. It is likely that the growth in laparoscopy would be much more obvious after 1996.

If we extrapolate from the American data, approximately 10% of adults have complicated or severe reflux disease with daily symptoms or severe esophagitis. The data provided by McMahon and Mercer indicate that even in Nova Scotia where the rate of antireflux surgery is highest, it is only applied to 19.6/100 000 people, or 0.196%. Nationally, this rate would be 0.114%, representing only about 1% of patients who would be considered as surgical candidates. Certainly surgeons are not doing too many antireflux procedures, but the data in McMahon and Mercer's paper do not tell us whether we are operating for the appropriate indications.

The "gatekeepers" for patients who undergo antireflux surgery are traditionally family practitioners and gastroenterologists. Has the enthusiasm for laparoscopic surgery influenced the referral patterns of these physicians? We have no data about that. Certainly, with each year there is an increase in surgeons trained in laparoscopic surgery and anxious to expand its scope. McMahon and Mercer question whether surgeons doing laparoscopic antireflux procedures are adequately skilled.

Ultimately, it is our responsibility to monitor ourselves. We must ensure that surgeons are well trained in the comprehensive care of patients with GERD. We must be familiar with preoperative evaluation and patient selection for surgery as well as preoperative and postoperative care. We must be

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skilled at advanced laparoscopic surgery, including methods to expose the esophagogastric junction, and we must master endoscopic suturing. We must keep track of our outcomes in an honest, organized and prospective manner. We must publish the results of effectiveness trials and not assume that we can perform at the level of the top centres that have published efficacy data in carefully selected patients operated on by the top surgeons in the field. When properly performed, laparoscopic antireflux surgery is an excellent, durable, cost-effective treatment for a common problem. We have the responsibility to perform this good operation well and to hold ourselves to the highest standards. If we can accomplish this, subsequent studies such as that by McMahon and Mercer will document not only increased numbers of these operations but improved patient satisfaction compared with long-term medical therapy.

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