Sleeve gastrectomy

The review article on sleeve gastrectomy by Lemanu and colleagues in this issue of the NZMJ is very timely. Sleeve gastrectomy is a form of bariatric surgery for treatment of severely obese patients; it is a procedure that is rapidly increasing in popularity. Indeed, for several New Zealand bariatric surgeons it has become the procedure of choice.

The theoretical ideal weight loss operation would result in all patients having excellent weight-loss that is durable long term. The operation would have no morbidity or mortality. No long-term complications would occur. There would be an excellent resolution of obesity-related comorbidities and improvement in quality of life. Food intolerance would be minimal. Currently there is no ideal weight loss operation. However, current operations are moving in the right direction.

During the history of bariatric surgery going back over the last 50 years, tens of different operations have been performed. Many of these operations have become obsolete as newer and better operations have been developed. Due to this constant evolution, bariatric surgery today is minimally invasive, safe and efficacious.

The most commonly performed bariatric surgical operations today are the laparoscopic adjustable gastric band, laparoscopic Roux-en-Y gastric bypass and laparoscopic sleeve gastrectomy. Of these operations, the laparoscopic gastric bypass is considered by many surgeons to be the gold standard. It has been in existence for 40 years and has stood the test of time while other procedures have failed. It results in a good weight loss of 71% excess body weight loss at 3 years. The weight loss is durable with follow-up data to 15 years.

The resolution of obesity-related comorbidities is impressive. However, there is a long learning curve and the operation is difficult to perform, particularly using a laparoscopic technique. Well-performed surgery results in low morbidity and low mortality 0.2%. Long-term complications of gastric ulcers and internal hernias can occur although these are uncommon 5–10%. Vitamin deficiencies can occur.

The laparoscopic adjustable gastric band is the safest bariatric surgical procedure with an operative mortality of 1/2000. It is relatively simple to perform and is reversible. On average, weight loss is 55% of excess body weight at 3 years. The disadvantages include the need for frequent follow-up with band adjustments, variable weight loss and more food intolerance compared to the other two operations. The risk of band or port complications requiring revisional surgery is cumulative every year at approximately 3% per year.

The laparoscopic adjustable gastric band remains popular in Australia and also in North America. The popularity for this procedure in Europe was once high but is now decreasing. In March 2012 at the 10th International Obesity Surgery Expert Meeting in Austria, attending bariatric surgeons were poled as to the procedures performed in their practice. Sixty-four percent of procedures were gastric bypass, 21% were sleeve gastrectomy and only 11% of procedures were gastric band.
The laparoscopic sleeve gastrectomy as indicated in the review article results in good weight loss and resolution of comorbidities. Patients have minimal food tolerance and this has been confirmed to be a clear advantage when compared to the gastric band. The very low ongoing complication rate is a particular benefit.

The Achilles heal of the sleeve gastrectomy is sleeve leakage. This complication can be extremely difficult to manage, become life-threatening and can result in the patient having a prolonged hospital stay. The New Zealand public will not accept sleeve leak rates of 5–10% and hence it is important that the sleeve leak rate is as low as possible.

An International Sleeve Gastrectomy Expert Panel Consensus statement was published this year. From over 12,000 Sleeve Gastrectomy procedures that the experts had performed the overall leak rate was 1%. This confirms that well-performed surgery with good staple-line management can produce acceptable leak rates.

Bariatric surgery has an important role to play in the fight against New Zealand’s obesity epidemic. The laparoscopic sleeve gastrectomy is emerging as a very useful bariatric operation and its popularity may continue to increase with time.

Competing interests: SK is a bariatric surgeon.

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References: