Morbid Obesity - Surgical Approach

Wei-Jei Lee, M.D., Ph.D.

Department of Surgery, Min-Sheng General Hospital, National Taiwan University, Taiwan

Bariatric surgery, currently the only effective treatment for morbid obese patients, is becoming an important division belonging to gastro-intestinal surgery. The weight reducing mechanism is due to a negative calories balance achieved by the reconstruction of gastrointestinal tract. This summary is to discuss the recent advancement in bariatric surgery.

Quality improvement in bariatric surgery - A safe treatment

Bariatric surgery, especially performed by laparoscopic surgery, is one the most common complex laparoscopic operations, and there are reports of variations in outcome among providers. Well experienced surgeons, fully trained in laparoscopic technique and proctorship, team work and adequate volume are important for a high quality bariatric surgical center. Through the program of Surgery Centers of Excellence, ASMBS have made a lot of progress in the promotion of good quality bariatric surgical practice in American. Improvement of technology, operative technique, results of clinical trials and accumulation of experience all contributed to this progress.

New bariatric surgery

Laparoscopic adjustable gastric banding (LAGB) and gastric bypass are the two most commonly performed bariatric operations currently. Laparoscopic sleeve gastrectomy is a new bariatric operation which has drawn a lot of attention. A potential advantage of this operation is the removal of fundus and ghrelin, therefore may also decrease the appetite of these patients. Initial results are promising but longer follow-up is indicated. Laparoscopic gastric plication is an emerging technique similar to sleeve gastrectomy. Laparoscopic sleeve gastrectomy with duodeno-jejunal bypass is a modified duodenal switch operation designed in Asia.

Incretin, a gut hormone released from distal ileum with anti-diabetic effect, is a novel study target in bariatric surgery. Laparoscopic ileal interposition, so called neuroendocrine brake operation, is proposed as a new operation. The hypothesis of this operation is supported by the finding of nesidioblastosis after gastric bypass. However, its final role is yet to be defined.

Choice of bariatric surgery

How to choice between various bariatric procedures is a clinical dilemma, both for the patients and doctors. At present, patients who came for weight reduction surgery will be asked to choose the operation they want after a comprehensive education of the advantage and disadvantages of various procedures without good clinical predictors available.
Conclusion

Recent advancement in bariatric surgery has provided morbidly obese patients a safer and more effective treatment modality. Further progress of bariatric surgery in the future depends on the elucidation of the effect of gut hormone and neuroendocrine mechanism as well as individual gene polymorphism.