

Bariatric Training and Education

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Obesity surgery is not only a craft but it also signifies consideration of the disease as a whole. An Operation Primer undertakes the task of communicating basic surgical techniques. Only someone who knows all the technical possibilities and procedures is in a position to react flexibly and adequately in different situations. About 50 different surgical methods have been developed in obesity surgery in the past 50 years. It is obvious from this that the optimal surgical method for the obese patient does not exist. Experience has shown that peri- and postoperative complications can be reduced with with simplified working steps. An Operation Primer is an ideal format for communicating new operative methods but it does not replace training by an experienced surgeon. A surgeon cannot rest on his laurels but must always keep up with the latest techniques. I would therefore like to take this opportunity to thank the Industry for making Mental Training, training on the computer simulator and operations in the laboratory possible. First-class surgery is possible only through careful acquisition of knowledge, regular training and quality control. Additional mental training is an effective way of optimizing the outcomes of further training for laparoscopic procedures. It is associated with fewer costs and with better outcomes in some crucial assessment scales than additional practical training.

Bariatric Surgery clinical fellowship in the USA

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Bariatric surgery has been gaining popularity worldwide. It is still not easy to master the comprehensive perioperative bariatric patient care and advanced laparoscopic skills including intracorporeal hand-sewn anastomosis.

Currently there are 62 bariatric surgery fellowship training programs in the USA according to the Fellowship Council (<http://www.fellowshipcouncil.org/>). The organization monitors individual fellowship training and regulates the matching process to ensure high volume and high quality training. ?

I completed one year clinical laparoscopic bariatric surgery fellowship, predominantly LRYGB and LAGB, with some LSG at Legacy Good Samaritan Hospital in Portland, Oregon. Subsequently I am undergoing another clinical MIS/bariatric surgery fellowship predominantly LRYGB and LSG, with some LAGB at Baylor College of Medicine in Houston, Texas. Both hospitals are accredited as Bariatric Surgery Center of Excellence by Surgical Review Corporation.

I would like to share my experience with 7 bariatric surgeons and discuss the way to organize a bariatric training program.

Bariatric Fellowship in Australia

Dr Benjamin Woolven
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General Surgical Training in Australia requires a six year undergraduate or 4 year post graduate medical degree and two years of post graduate experience before commencement. General surgical training is undertaken over a minimum of 5 years and requires successful completion of a two part clinical examination. Further post fellowship training is at the discretion of the individual surgeon though non compulsory two year programs in upper gastrointestinal, colorectal and hepatobiliary surgery have been established. There is no centrally administered training program in bariatric surgery though a number of individual institutions offer one year fellowship programmes.

The authors experience is of a one year programme undertaken at St George Private Hospital in Sydney in Upper Gastrointestinal and Bariatric Surgery. During the fellowship there were 275 bariatric operations including 52 laparoscopic adjustable bands, 158 laparoscopic sleeve gastrectomies, 29 laparoscopic gastric bypasses and 61 revisional operations. There were 433 non bariatric operations. International candidates from Singapore, New Zealand and the United Kingdom have previously completed the programme. Future international candidates are welcome to apply for the St George Fellowship program and other bariatric training programmes throughout Australia.

Bariatric Fellowship Training in a Center of Excellence, Taiwan Experience

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Background: Bariatric surgery has gained more popularity in Asia-Pacific area. But, the multiple co-morbidities of morbid obesity and steep learning curve make comprehensive training program to be looked-for in recent years. Hereby, we present the fellowship training program in a unique International Bariatric Surgery Center of Excellence (BSCOE) in Taiwan.

Methods: From July 2009 to July 2010, fellowship training process, learning curve, patients demographic data, operation time and surgical complications were all collected from different stages of the learning. According to the bariatric training protocol of the institution, data was analyzed and compared.

Results: In this one-year period, totally 346 laparoscopic bariatric operations were performed in the BMI Surgery Center, E-Da Hospital. As a primary surgeon, the fellowship performed 169 bariatric cases independently after 43 assistance. Different type of bariatric surgeries were performed, as gastric banding with or without gastric plication, sleeve gastrectomy and Roux-en-Y gastric bypass. There were only 5 surgical complications (3.55%). There was no mortality. In this journey, we reviewed different stages of the fellowship training, as being from a mere assistant, progressed to primary surgeon, and then supervisor.

Conclusion: Low complication rates came from excellent supervised bariatric training program and we proposed a bariatric surgery training guideline in Asia-pacific area.

Better Short-term Weight Loss for Patients with Group Therapy after Gastric Banding

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Background:

Adjustable gastric band surgery is one of the standard surgeries for the treatment of morbid obesity. The results between, however, varies. Post-operative intensively follow-up and group therapy may offer the patients better concept of eating behavior and life style change, and further lead to better weight loss.

Materials and Methods:

From January 2008 to Dec 2009, 156 patients had received gastric banding surgery. Among these, 31 patients joined the post-operative group therapy including nutritional counseling, aerobic exercise and diet education willingly. Another 31 patients was selected without post-operative group therapy as comparative group. The data was collected retrospectively.

Results:

The mean BMI was 43.6 ± 5.3 kg/m² in the study group and 42.8 ± 6.5 kg/m² in comparison. The BMI at one year after surgery was 32.8 ± 3.6 kg/m² and 34.2 ± 4.6 kg/m² respectively. The average adjustment was 5.2 times in study group comparing to 3.8 times. The study group has better loss of body fat and higher percentage of muscle component.

Conclusion:

Post-operative group therapy is effective for better weight loss and greater improvement of body fat percentage for patients undergo gastric banding.

Laparoscopic adjustable gastric banding in a Japanese institute

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Background/Aim: Although bariatric surgery has not been popular in Japan, the most popular bariatric procedure is now laparoscopic sleeve gastrectomy. In 2005, we introduced laparoscopic adjustable gastric banding (LAGB) into Japan, and here, our data were presented and evaluated.

Methods: Between August 2005 and December 2010, 31 morbidly obese patients (18 women / 13 men, mean age of 39yr) received LAGB in our institute. All patients were morbidly obese (BMI>35 kg/m²), and the averaged weight was 118 kg and BMI was 43 kg/m². In regard to LAGB devices, LAP-BAND® (Allergan Medical) was used in 29 patients and SAGB® (OBTECH Medical GmbH) in 2 patients. All procedures of LAGB were performed through the pars flaccida pathway with band fixation using gastric-to-gastric sutures. Averaged follow-up duration was 35 months.

Results: All the procedures were completed laparoscopically. Two complications were experienced (postoperative bleeding and port trouble), and reoperations were needed in the patients. Weight loss and % excess weight loss on the average were 25kg and 44% after 1 year, 33 kg and 57% after 3 years and 29 kg and 51% after 5 years. Accordingly, comorbidities were frequently improved, and type 2 diabetes and metabolic syndrome were resolved in 9 of 10 patients (90%) and in 14 of 17 patients (82%), respectively.

Conclusions: LAGB is safe and effective in Japanese patients with morbid obesity, and our data seem to be equivalent to those previously reported in Western countries.

Patient Selection for Laparoscopic Adjustable Gastric Banding

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Surgery is the most effective treatment for morbid obesity. Various bariatric operations are available but the ideal operation remains unknown. Laparoscopic Adjustable Gastric Banding (LAGB) is one of commonest bariatric operations. It is simple, adjustable, reversible and minimally invasive. However, the outcome of weight loss is highly variable and band-related complications occasionally occur. To achieve the best outcomes, careful patient selection and a committed follow-up program are essential. Our centre started LAGB since 2004. In 2007 and 2008, we introduced laparoscopic sleeve gastrectomy (LSG) and gastric bypass (LRYGB) respectively. We reviewed our patients who underwent bariatric surgery in the past 6 years, and compared the results among these 3 procedures. We investigated potential predictors of outcomes after LAGB and we also reviewed published data for additional predictors. Till 2010, we had 72 patients who underwent bariatric surgery (42 LAGB, 22 LSG, 8 LRYGB). The median age was 44(range: 24-68) and the BMI was 41 (range: 30-57). Median follow-up among the three procedures was 45, 8 and 6 months respectively. The median excess weight loss (EWL) was 29, 34, 44% respectively. Among patients who underwent LAGB, 29 patients (69%) defaulted follow-up in long-term. Twenty-two (52%) patients had unsatisfactory weight loss (<30%EWL) and 6 (14%) patients developed band complications and required band removal. In general, predictive factors for poor outcomes include age, unwilling to change lifestyle habits and loss of follow-up. In conclusion, long-term results of LAGB are unsatisfactory in unselected patients. Careful patient selection is essential in achieving good outcomes in LAGB.

Lap banding in Thailand

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Laparoscopic Gastric Banding was the first bariatric procedure done in Thailand in 2003. Its preference decreased gradually as Thai surgeons acquired more expertise in other more difficult procedures. The popularity of laparoscopic sleeve gastrectomy also seemed to contribute to this trend. However, banding still entertained the benefit of being a relatively easy procedure among all. Surgeons seemed to come across more long-term complication after more years of follow-up, including esophageal dilatation, reflux with or without esophagitis, slippage and band erosion. Some cases of reoperation were experienced. Nowadays, Thai surgeons have different opinions as for the indication of gastric banding.

Gastric Band in India

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Bariatric surgery started late in India. VBG was introduced in late 1990s. First gastric band surgery in India was done in 2000 & subsequently till 2005 almost all surgeons started bariatric career with gastric band. Most of experienced laparoscopic surgeons could adept gastric band comfortably & numbers of band surgeries increased rapidly till realization started settling in that band is not effective in almost 25% - 35% with 3 year explantation rates of 20% - 30% in different hands.

Introduction of gastric bypass & sleeve gastrectomy has led to further decline in gastric band surgery's fortunes in India. Gastric band now accounts for less than 1% of procedures in most of bariatric practices. Few recent centers have shown renewed interest in gastric band implantations with successful outcomes.

Various reasons attributed to poor results seen by Indian surgeons may be attributed to poor follow up due to failure to get regular adjustments due to long distances, incompletely developed bariatric program, high rate of oesophageal dilatation etc. Lack of patience, due to slow weight loss results, compared to other bariatric surgeries may also attribute to high explanation rate.

Gastric band surgery accounts for almost 50% of bariatric procedures in USA, but only long term follow up will show whether fate of bands will follow the Indian graph. As gastric sleeve is becoming the procedure of choice amongst bariatric surgeons & patients in India, the future of gastric band surgery in India is bleak.