Few surgical procedures have caught public imagination and expectations the way, weight loss intervention has done during the recent past. This is compounded by the fact that relevant procedures are now available through minimal access surgical approach offering a quick recovery and return to routine life. Moreover surgeons look upon these bariatric surgeries as a new and challenging modality that they are keen to add to their repertoire offering better reputation and financial incentives in addition to established benefits to their patients. The concept was in fact introduced in the early 1950’s with intestinal bypass acting through inducing malabsorption. However it was not until 1965 that Dr Edward E. Mason and Dr. Chikashi Ito at the University of Iowa developed the original gastric bypass which has since shown more promise with fewer complications and it is by virtue of this that the former has come to be known as the ‘father of obesity surgery’.

The boom in different procedures to be adopted has however led to a number of queries not only in the minds of those seeking intervention but the ones offering benefits related to ideal body weight and redressal of co-morbidities, that is the doctors as well. Technical debates are raging and recommendations changing as the concept continue to gain acceptability and momentum. Contrary to the general perception that these procedures are meant primarily for cosmetic reasons, the actual benefits are now believed to be health related. Studies have shown that bariatric surgery contributes to diabetic control, psychological benefits, reduced risk of cardiac events and reduction in mortality of 23% from 40%\(^1\). A lot of research has been afoot for more than half a century looking into possible surgical cures for metabolic diseases such as high lipid, cholesterol and blood sugar. In 1995 Dr Walter Pories et al published a paper\(^2\) concluding that gastric bypass is an established and effective therapy for morbid obesity and its associated morbidities, producing a durable and complete control of diabetes mellitus. In 2007, encouraged by the significant impact of bariatric procedures on actual cure of metabolic upsets as described, the American Society for Bariatric Surgery (ASBS) which was established in 1983 changed its name to the American Society for Metabolic and Bariatric Surgery (ASMBS).

Given the recent public interest in the visible benefits of weight loss surgery and much wider availability of doctors and centres offering various procedures it is essential to have some consensus on standardization of indications for the said intervention. The American College of Physicians recommend that those with a BMI of at least 40 Kg/m\(^2\) who have failed an adequate exercise and diet programme and with co morbidities such as hypertension, impaired glucose tolerance, diabetes mellitus, hyperlipidaemia and obstructive sleep apnoea should be offered the procedure after consultation with the prime surgeon\(^3\). The American Society for Metabolic and Bariatric Surgery (ASBMS) in its recent guidelines however has suggested a BMI of 30 Kg/m\(^2\) with co morbidities as an indication for bariatric surgical intervention.

Procedures recommended for affecting weight loss act by way of altering the anatomy of gastrointestinal tract (stomach and digestive system) and inducing physiologic changes in the
body that affects energy balance and fat metabolism. They can be classified broadly into three types:

- Predominantly malabsorptive:
  These procedures are mainly reliant on creating a physiological upset of normal absorptive mechanisms. They include biliopancreatic bypass, jejunoileal bypass and endoluminal sleeve. None of these are however in vogue given the metabolic and nutritional upset they create.

- Predominantly restrictive:
  Procedures such as adjustable gastric banding, vertical banded gastroplasty, intragastric balloon, gastric plication and sleeve gastrectomy result in a limited gastric volume thereby producing early satiety and reduced oral intake. Moreover since the continuity of the alimentary canal is not disturbed metabolic complications are not much of an issue.

- Mixed:
  Gastric bypass, sleeve gastrectomy with duodenal switch and implantable gastric stimulation are procedures that apply both techniques simultaneously.

Bariatric Surgery is usually supported by a dietary plan in the immediate post operative period, consisting of a clear liquid diet, followed by a blended or pureed sugar free diet for at least two weeks. The restrictive element of these procedures limits the capacity of the stomach inducing nausea and vomiting in case of excessive intake. Vitamin and mineral supplements are needed to compensate for decreased absorption of these essential items. High protein diets are usually recommended in light of the decreased consumption of food. The actual success of weight loss surgery depends on factors other than surgery alone such as long term nutrition and dietary habits, exercise and life style changes.

Although there are demonstrable health benefits linked to bariatric interventions, the patient seems more concerned with the visible degree of weight loss. A meta-analysis from University of California Los Angeles looked at weight loss as a result of different procedures at thirty-six months and concluded that Biliopancreatic diversion offered maximum benefit at 117 pounds followed by Roux en Y gastric bypass and then vertical banded gastroplasty. Studies have also shown that bariatric surgery improved diabetic status in more than 85% of the affected and afforded remission in 78%.

One of the key questions related to bariatric surgery is the amount of risk associated with this intervention. Complications related to the procedure as reported from time to time include gastric dumping syndrome, anastomotic leaks, incisional hernias, infections, pneumonia, osteoporosis, secondary hyperparathyroidism, rhabdomyolysis, gallstones and hyperoxaluria. Studies have shown a mortality of less than 0.3% in individual undergoing surgery and a lower risk of death in the later group as compared to those plagued by obesity and its co-morbidities who do not have the procedure.

Taking all the facts into consideration bariatric surgery certainly promises to attract headlines with introduction of modified interventional procedures from time to time as research into
the best possible modality with maximum benefits and least risk continues. Patient variation and surgeon’s expertise has its bearing on the ultimate choice in this respect as improvement in health, longevity and quality of life tops the list of core determinants acting as a guiding principle in making the ultimate decision regarding the intervention indicated.

REFERENCES


