

## *Summary and Conclusion*

Obesity can be defined as a disease in which excess fat has accumulated, such that health may be adversely affected and mortality increased. The measurement of Body Mass Index (BMI) is the most common way to assess the degree of obesity, which is calculated by dividing the weight per (Kg) on height per ( $M^2$ ).

Morbid obesity is defined as obesity with a body mass index  $\geq 40$  or  $\geq 35$  with secondary serious diseases.

The increasing incidence of overweight and obesity has been identified as an epidemic and more than 250 millions individuals are obese.

The aetiology of this condition is multifactors including genetic and familial predisposition, environmental factors, endocrinal causes, drug induced obesity, psychological factors but the genetic predisposition to obesity is currently thought to be the most common cause of obesity.

Morbid obesity is associated with large number of problems as coronary artery disease, hypertension, impaired cardiac ventricular function, sleep apnea syndrome, obesity hypoventilation, type 2 diabetes, dyslipidemia, stroke and osteoarthritis.

Medical (non surgical) therapy for severe obesity has limited short-term success and almost non existent long term success. Medical weight loss therapies include diet regimen, behavior modification, exercise pharmacotherapy.

Bariatric surgery is the most effective weight loss therapy available for patients with morbid obesity. Bariatric surgery results in marked and long lasting weight loss and elimination or improvement of most obesity related medical complications.

Pre operative assessment of the morbidly obese patient is important, a careful medical history should be taken paying attention to dietary habits, a full cardiological examination is essential.

Pre operative investigations should include a detailed endocrine profile, upper gastrointest endoscopy, abdominal ultrasound and respiratory function tests.

Patients should meet the following criteria for consideration for bariatric surgery: BMI  $\geq 40 \text{ kg/m}^2$  or  $>35 \text{ kg/m}^2$  with associated medical comorbidity, failed dietary therapy, psychiatrically stable, knowledgeable about operation and its sequelae.

Several bariatric surgical procedures have been introduced over the past decades, involving restrictive or malabsorptive techniques and their combinations.

The operations currently in use are Roux-en-y gastric bypass, adjustable gastric banding, vertical banded gastroplasty and biliary pancreatic diversion with or without duodenal switch.

There is no single or standard surgical procedure for management of morbid obesity, and future studies will likely lead to modifications in current procedures and new surgical approaches.

Long term follow up is very important because obesity is a chronic disease with a high risk of recurrence, even after bariatric surgery.

Complications of obesity surgery can be divided in to (1) general complications (Complications related to any obese patient), (2) specific complications related to every single procedure.

The general complications include death, pulmonary embolism infections, atelectasis, rhabdonmyolysis and hepatobiliary complications.

To prevent complications it is recommended to select the patients, preoperative screening, post operative care and awareness of potential complications with timely diagnosis and treatment of complications.