

Introduction

INTRODUCTION

Obesity is becoming the plague of the twenty-first century. With overweight becoming the norm in most Western countries and developing countries, two-thirds of adults suffer from overweight or obesity (Table 68.1). Every clinician and definitely every surgeon faces the condition and its associated diseases, such as type 2 diabetes, as part of their practice. According to the World Health Organization (WHO), overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. For adults, WHO defines overweight as a body mass index (BMI) of 25 kg/m² or more and obesity as a BMI of 30 kg/m² or more. Severe obesity increases the risk of cancer, is associated with multiple other diseases, affects quality of life and reduces life expectancy by 5–20 years. Severe and complex obesity is a phrase commonly used for patients with BMI ≥ 35 kg/m² and obesity-related disease, or BMI ≥ 40 kg/m² by itself (Table 68.2). Overweight and obesity can be considered normal physiological responses to the current food environment. Few people have a single identifiable genetic or hormonal basis. Bariatric surgery comes from the Greek ‘baros’ (meaning weight/pressure) and ‘iatic’ (the medicine or surgery thereof). MC4R deficiency represents the most common genetic basis for severe obesity, with heterozygous mutations in MC4R detected in up to 5% of patients with severe, early-onset obesity. Surgeons encounter the challenge of obesity on a daily basis as it affects the treatment of nearly every abdominal pathology in terms of approach and outcomes. Obesity is a heterogeneous disease and the response of individuals seeking treatment to different therapeutic modalities is variable. Currently there are no available robust tools to predict this response. Therefore a trial of options is required. The principles of therapeutic interventions for all other diseases are applicable, including escalation of treatment, cessation of modalities that are not effective and addition of therapy when the response is insufficient or transient. Lifestyle modifications, supervised interventions, pharmacotherapy, bariatric surgery and bariatric surgery combined with pharmacotherapy are available interventions. It is important to stress that the response is a biological phenomenon and not a volitional one.

TABLE 68.1 Definitions of overweight and obesity. **2** Adult weight status BMI (kg/m²) Normal 18.5–24.9 Overweight 25.0–29.9 Class 1 obesity 30.0–34.9 Class 2 obesity 35.0–39.9 Class 3 obesity ≥ 40.0 **2** Body mass index (BMI) = weight (kg)/height (m) a Obesity for children is defined as BMI at or above the 95th centile. b ‘Super-obesity’ is a term commonly used to describe BMI ≥ 49.9 kg/m². Multidisciplinary assessment and multimodal treatment • The common operations and how they work • How to assess and treat perioperative complications • Follow-up, nutritional supplements and biochemical • monitoring **TABLE 68.2** Conditions that are associated with severe and complex obesity. Type 2 diabetes Hypertension Dyslipidaemia Obstructive sleep apnoea Arthritis and functional impairment Gastro-oesophageal reflux disease Non-alcoholic fatty liver disease/non-alcoholic steatohepatitis Polycystic ovary syndrome Clinical depression Various cancers, in particular endometrial cancer

ulation of the stomach and/or small bowel to achieve weight loss and control of obesity-related disease.

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