Obesity management: lifestyle modification, diet and surgery

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Obesity is responsible for numerous serious problems in our male patients. The issue should be actively addressed – simple measures to reduce weight can considerably improve our patients’ quality of life.

It has been described as a tsunami – obesity is overwhelming the Western world. Obesity already affects around 10 per cent of the middle-aged male population and is generating considerable problems for men hoping to live healthy, productive and fulfilling lives. A large waist has been linked to increased death risk in young and middle-aged men. A recent cohort study on almost a million and a half white adults found that those with a body mass index (BMI) of 22.5–24.9 had the lowest risk of death over 10 years of follow-up. Risk of death rose by around 30 per cent for every five-unit increase in BMI over the range of 25–49.9. Even moderately overweight men were significantly more likely to die than those in the ideal category. As lifestyles become more sedentary and energy-rich food becomes the norm, the cost to the NHS of weight-related diseases already exceeds £5 billion per annum; more than 18 million sick days and 40,000 years of working life are lost every year.

THE METABOLIC SYNDROME

The consumption of ‘fast food’ has spiralled in modern times, while the amount of exercise taken has fallen. If we consider the myriad of problems posed by excessive weight gain, the repercussions become all too clear. The term ‘metabolic syndrome’ has been used to describe the multisystem issues related to obesity. Figure 1 summarises the systems potentially involved.

Obesity is primarily responsible for numerous serious problems in our male patients. Sleep apnoea is common and...
often accepted as normal by men and their partners, but may ultimately lead to heart failure and coronary/stroke disease. Type 2 diabetes is directly related to excessive weight gain and already affects 10 per cent of the population in some areas of the UK.\(^2\) Cancer risk is also increased in obese people.\(^3\) While it is possible to tackle each individual problem created by being overweight, it makes much more sense to try to prevent these conditions developing in the first place.

**OBESITY AND THE UROLOGIST**

In the urology setting, men most often present with erectile dysfunction or benign prostatic hyperplasia. Concern with urinary or sexual function often first brings a man to see the doctor, while issues such as obesity, hypertension, abnormal lipids and prediabetes may be neglected. If we take this opportunity to evaluate our men when they attend for urological assessment, we can also evaluate them from a men’s health perspective before these co-morbidities begin to deteriorate.

Lifestyle change, including increased physical activity, needs to be actively promoted. This includes day-to-day activities like walking and climbing stairs, as well as structured repetitive activities such as jogging, cycling or regularly going to the gym.\(^3\)

**EATING HABITS**

Typically, a middle-aged man presenting to our clinic will be overweight, consume too much alcohol on a daily basis and take little or no exercise. We recently asked a man if he could walk briskly for 30 minutes – he answered that he had no idea as he had never tried! Such responses are common and a rapid assessment of lifestyle reveals the typical array of lifestyle errors that lead to progressive weight gain.

Overweight men often skip breakfast, take a sandwich lunch on the move and then settle to a huge, energy-rich meal at the end of the day, washed down with a few glasses of wine (as a reward for the discipline earlier in the day) – perhaps not long before going to bed. Food binge is associated with prolonged weight gain through long-term fat deposition compared to taking regular smaller meals. The old adage of eating like an emperor at breakfast, a king at lunch and a pauper in the evening holds true today. We try to encourage this pattern of behaviour. Energy needs to be used once we have ingested it and anything surplus to requirements will be stored as fat. Clearly this is likely to happen more at the end of the day. Alcohol is rich in calories and regular intake in the overweight, in particular, can lead to a fatty liver, with the potential for cirrhosis. Our patients can reduce energy intake and increase energy output without too much effort provided that they are guided and supported appropriately. Simple advice such as avoiding foods like bread, pasta, and other flour-based products, including cakes, pastries and biscuits, can reduce the intake of energy-rich foods. In addition, bread is almost invariably consumed with other high-energy foods, such as butter or olive oil. These foods often feature in snacks too, which are frequently consumed in between meals, often accompanied by sugar-sweetened beverages. Increasing fruit and vegetable content in our diet is advisable, although it should be remembered that fruits such as grapes contain considerable amounts of sugar, so these should be consumed sparingly. A good rule is to avoid eating anything in between meals.

**EXERCISE**

If we can persuade our patients to adopt such lifestyle changes, a reduction of more than 5–10 per cent of body weight is very realistic over a few months. Taking a brisk walk every day is ideal. The ten-thousand-step programme introduced centuries ago by the Japanese is most appropriate. We encourage our men to buy a pedometer and walk until they hit five figures. A sedentary existence may only generate 1500 steps per day, which is not conducive to good health. The best time for exercise is probably first thing in the morning when insulin and glucagon levels are low, thereby increasing fat burn and raising metabolic rate for up to 18 hours thereafter. Some
additional exercise later in the day should also be encouraged.

**PHYSIOLOGY OF OBESITY**

Men will respond well to improving parameters, such as reducing weight or waist measurement, in their battle against obesity. Using these measurements will encourage sustained weight loss. Our patients need to understand that a single bout of exercise can improve insulin sensitivity for up to 16 hours, while multiple bouts have additive effects and improve lipid profiles too.

The message is clear – a little weight reduction goes a long way to improving health. A 10kg weight reduction in an obese man can result in a greater than 50 per cent reduction in risk of mortality. In addition, blood pressure can be reduced by 10mmHg systolic and 20mmHg diastolic readings. Total cholesterol can be decreased by 10 per cent and triglycerides by 30 per cent.

The metabolic activity of fat cells themselves, once thought to be inert, is in fact highly dynamic (Figure 2). The sympathetic nervous system is involved in a complex feedback system, with fat cells releasing leptin, a neurohormone acting on the hypothalamus, to modulate energy intake through feeding. Leptin circulates at levels proportional to body fat, with the result that overweight people feel more hungry more often, and therefore overeat.

**DRUGS IN OBESITY**

Currently, the case for drug intervention in obese patients is not strong. Many medications have been tried in the treatment of obesity and while some of them have worked, they are plagued by potentially serious complications. This is not surprising when we consider the mechanism of action of these drugs. They either increase metabolic rate or decrease appetite. This latter drug type will be centrally acting, and predictably cause central nervous system side-effects such as depression and even suicidal tendencies.

The only drug currently available on the UK market is orlistat, which attempts to achieve weight reduction by blocking the absorption fats from the gut. While the drug has modest success, it is once again associated with unpleasant side-effects, including abdominal discomfort and altered bowel habit. It would appear that the pharmacological approach to weight reduction is too plagued by complications to be of much value; if it is used, it should be deployed in combination with lifestyle modification.

**SURGERY FOR OBESITY**

Bariatric surgery, or surgery for weight reduction, is gaining popularity in the West, as it is seen as a quick fix for the morbidly obese patient. Gastric banding/balloon application and gastric bypass surgery have been used widely in patients thought to be at great risk from their excessive mass. Dramatic weight reduction is possible and sustained weight loss can be achieved by surgical intervention. However, patients must understand the risks involved with surgery to the gut and the possible metabolic repercussions thereafter, such as chronic electrolyte imbalance. A new speciality of post-bariatric surgery is also evolving to deal with the issues of massive weight reduction, including redundant skin.

**CONCLUSIONS**

Obesity is an epidemic problem that is destined to afflict more and more of our patients. Simple measures to reduce weight can considerably improve the quality of life of our men. Rather than be ignored, the issue should be actively addressed. We encourage our patients to get to a better PLACE (Figure 3). Urologists working in collaboration with their GP colleagues...
seem in a good position to focus on this important aspect of men’s health.10

REFERENCES