

Gastroenterology: the impact of obesity

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INTRODUCTION

We are in the middle of an obesity epidemic which is largely attributable to the obesogenic environment in which we live. The UK has the third highest level of obese people in Western Europe. Over 1.4 billion adults worldwide are overweight or obese. Obesity is associated with significant morbidity affecting all branches of medicine. This symposium brought together physicians and surgeons from a range of specialties to present topics relevant to both gastroenterologists and general physicians.

SESSION 1 – GASTROINTESTINAL PROBLEMS CAUSED BY OBESITY

Professor Kenneth McColl (University of Glasgow) used epidemiological studies to demonstrate that obesity increases the risk of gastro-oesophageal reflux disease, Barrett's oesophagus and oesophageal adenocarcinoma. Around 30–50% of oesophageal adenocarcinomas can be attributed to a high body mass index (BMI). This risk may largely be explained by the increased intra-abdominal pressures associated with obesity that compromise the lower oesophageal sphincter. BMI is a useful predictor of disease; a BMI > 25 is the best predictor of dyspeptic symptoms being due to reflux and is as valuable in predicting response to proton pump inhibitors as 'gold standard' pH metry.

Dr Ewan Forrest (Glasgow Royal Infirmary) explained how visceral fat deposition promotes a pro-inflammatory state resulting in insulin resistance, increased free fatty acid delivery to the liver and oxidative stress culminating in steatohepatitis and cirrhosis. For patients with non-alcoholic fatty liver disease, alcoholic liver disease and hepatitis C, obesity contributes to liver-related mortality and is an independent risk factor for hepatocellular carcinoma.

Obesity increases the risk of lower gastrointestinal tract disease; a BMI > 30 is associated with a two-fold increased relative risk of both colorectal cancer and adenoma.¹ Professor Mark Hull (St James's University Hospital, Leeds) proposed that intestinal dysbiosis may be a causal factor linking colorectal cancer with obesity. Changes seen in the gut microbiota of obese patients are similar to those seen in patients with colorectal cancer. There is no evidence linking obesity with an increased risk of inflammatory bowel disease but evidence suggests an association with more aggressive disease, earlier onset, increased postoperative recurrence and an altered response to therapy.

SESSION 2: DIFFICULTIES IN GASTROINTESTINAL MANAGEMENT OF OBESITY

Dr Stuart McPherson (Freeman Hospital, Newcastle upon Tyne) presented a practical pathway for investigating asymptomatic abnormal liver function tests encompassing pattern recognition, clinical assessment, staging of disease and assessment of risk of advanced disease. Non-alcoholic fatty liver disease (NAFLD) is the most common cause of abnormal liver function tests in primary care. Scoring tools (e.g. FIB-4 score and NAFLD score) and transient elastography (fibroscan) are useful to non-invasively stage NAFLD. They have a very good negative predictive value and can be used to exclude advanced fibrosis.²

Professor Christopher Gostout (Mayo Clinic, USA) delivered the Sydney Watson Smith Lecture via a live videolink. He outlined the issues faced when endoscopic management of postoperative complications of bariatric surgery. Using video demonstrations he described the

endoscopic techniques for managing stomal stenosis, fistulas, leaks, laparoscopic band erosion and gastrointestinal bleeding. He emphasised the importance of life-long multidisciplinary care to ensure optimal outcomes.

SESSION 3: MANAGEMENT OF OBESITY

The afternoon session began with a debate on the best interventional method to manage obesity. Mr Peter Small (Sunderland Royal Hospital) argued for surgical management highlighting the impressive mortality rate, (< 0.1%) the significant improvement of co-morbidities, including diabetes,³ the survival benefit and long term efficacy (50–65% excess weight loss).

Professor Gostout argued that it is impossible, both logistically and economically, to offer surgery to all who may benefit. Endoscopic intervention can fill the gap between what lifestyle and drug therapy can achieve and what surgery can achieve. Primary endoscopic therapy (gastric balloon, sleeve gastropasty and the duodenal-jejunal bypass sleeve) can offer earlier intervention at a lower BMI, particularly for those with co-morbidities and although less durable than surgery, procedures can be repeated. The vote was very close with Professor Gostout winning by 5%.

Our lives are changing, we are expending less energy and this has marked effects on our metabolism. Professor Trenell (Newcastle University) used epidemiological studies to demonstrate that those who are least active are at significantly higher risk of cardiovascular disease and premature death from all causes. Fitness, regardless of BMI, is a strong biomarker for risk of type 2 diabetes and cancer. An active lifestyle is recommended but

changing a person's behaviour can be difficult. There is a need for a better understanding of the behavioural barriers to change and how best to support people in sustaining weight loss.⁴

Professor Sattar (University of Glasgow) urged us to be empathic towards our obese patients who will have to work very hard to lose and sustain weight loss. Diet, weight management programmes and drugs can help. Long term adherence to a diet, rather than the type of diet, is of key importance and he gave us practical diet tips to use in clinic.⁵ The only weight loss drug licensed in the UK is orlistat which is associated with a modest weight loss of about 2.3kg. Others are on the horizon, including GLP-1 agonists which are currently undergoing trials.

CONCLUSION

This symposium highlighted the disease burden associated with obesity focusing particularly on the gastrointestinal tract and liver. Current therapies, including diet, drugs and surgery were appraised and new interventions on the horizon were explored. New endoscopic techniques were discussed and we heard an interesting debate on the future of interventional management.

A clear message from each of the speakers was that there is not a single solution to the problem of obesity prevention and management but through a better understanding of the pathophysiology of disease associated with obesity, development of new therapies and an improved understanding of how best to support behavioural change we can improve outcomes for our patients.

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