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Post Roux-en Y gastric bypass complications: A comparative study assessing the clinical effectiveness of oesophagogastroduodenoscopy and oral-contrast swallow

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ABSTRACT

Introduction: Anastomotic strictures at the gastrojejunal anastomosis have been reported to occur in 3–20% of patients following a Roux-en Y gastric bypass (RYGB). Patients commonly present with dysphagia, vomiting and post-prandial pain. Clearly using the appropriate investigations to diagnose the potential complications have both clinical and economical benefits. The reported study compared whether Oesophagogastroduodenoscopy (OGD) or oral-contrast swallow should be employed in patient presenting with post-operative complications following RYGB.

Methods: A retrospective study was conducted on 112 patients between 2008 and 2012; at a level 4 bariatric surgery hospital. Patients who had ≥1 OGD to investigate a post-operative complication were included for analysis. Oral-contrast swallow radiology reports performed <28 days prior to an OGD were included for analysis. Patient demographics, OGD, oral-contrast swallow and additional interventions reports were collated from electronic records, pathology and radiology results.

Results: 112 patients underwent 1 or more OGD. 75% (n = 67) of patients were diagnosed with a post-operative complication with the most common, 51% (n = 57) being a gastrojejunal anastomotic stricture. 82% (n = 47) of patients presented with dysphagia + -vomiting prior to the diagnosis of gastrojejunal anastomotic strictures. 96% (n = 55) of patients with gastrojejunal anastomotic strictures were successfully treated with balloon dilation. 48% (n = 54) of patients had an oral-contrast swallow as a first line investigation for post-operative symptoms prior to the OGD. 15% (n = 8) of oral-contrast swallow were reported with a significant pathology, with only 1 stricture identified. 70% (n = 38) of oral-contrast swallows reported as normal had a pathology identified at OGD, including 28 strictures.

Conclusion: We recommend that an OGD should be performed in patients presenting with symptoms consistent with a stricture following RYGB. The urgency of the OGD will be

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dictated by clinical correlation. The use of a water-soluble contrast swallow should be reserved for a suspected anastomotic leak.

Introduction

Obesity is defined by a body mass index (BMI) above 30 kg/m^2.[1] Obesity is associated with increased patient morbidity and mortality.[1] There has been a substantial rise in the incidence of obesity over the past two decades. Currently 24% of men and 25% of women in England are classed as obese.[2] Hence the need for bariatric surgery is increasing with a reported 5407 gastric bypass procedures performed by the NHS in 2011–2012 compared with 858 in 2006-2007.[2] The gold standard bariatric procedure remains the Roux-en Y gastric bypass (RYGB). With increasing numbers of RYGB being performed there has been a concomitant increase in post-operative complications such as anastomotic leak, stricture and dysphagia.[3,4] Many of these patients with post-operative complications are presenting to non-bariatric acute general surgical services.[3] Thus, the non-bariatric surgeon is required to manage and investigate these patients prior to specialist transfer or intervention. Clearly using the appropriate investigations to diagnose the potential complications have both clinical and economical benefits. Currently both oesophagogastroduodenoscopy (OGD) and an oral contrast (either water soluble or barium) have been suggested to be the preliminary investigations of choice.[5,6] However there is anecdotal evidence to suggest that in many units both investigations are performed or in some instances other radiological tests are employed.

Figure 1a illustrates a normal post-operative oral-contrast swallow post-RYGB. Anastomotic strictures at the gastro-jejunal anastomosis have been reported to occur in 3–20% of patients.[7,8] Patients commonly present with dysphagia, vomiting and post-prandial pain. There is evidence to suggest that these complications may occur more frequently after the use of a circular stapler to construct the gastrojejunal anastomosis.[9,10] In such patients oral water-soluble contrast can demonstrate narrowing at the gastrojejunal anastomosis with associated expansion of the gastric pouch and delayed passage of contrast material into the roux limb (Fig. 1b).[5] However, OGD offers the advantage of being diagnostic and therapeutic allowing balloon dilation of strictures up to 12–15 mm. This of course is at the expense of increased risk of iatrogenic perforation.[11]

The reported study compared whether OGD or oral-contrast swallow should be employed in patient presenting with post-operative complications following RYGB.

Methods

A total of 1106 RYGB were performed at our bariatric unit during January 2008–December 2012 inclusive. All case notes were reviewed and only patients requiring an OGD presenting with post-operative complications were included in the study. Thus 112 patients made up the study population. All these patients had undergone at least one OGD for their post-operative symptom. Patients not requiring an OGD were

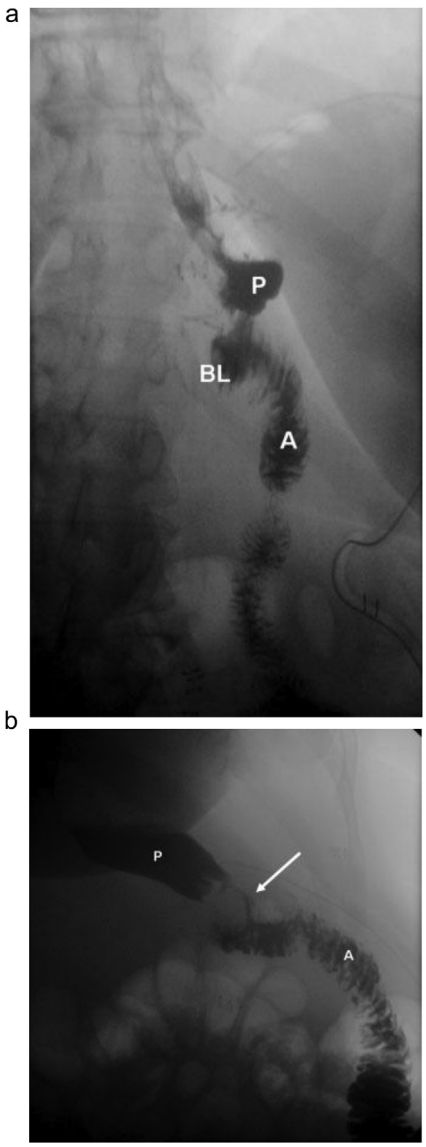

Fig. 1 – a: Normal appearance following RYGB: P = gastric pouch, BL = Blind Limb, A = Alimentary limb. 1b: Barium contrast demonstrating narrow at gastrojejunal anastomosis: Arrow indicates narrowing at the gastrojejunal anastomosis, P = Gastric pouch, A = Alimentary limb.

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