

## Case Report

# Acutely slipped gastric band with gastric necrosis and massive haemorrhage

Simon Parys\* and Senarath Werapitiya

Department of General Surgery, Bunbury Regional Hospital, Bunbury, Australia and

\*Correspondence address. PO Box 3045, Success, WA 6164, Australia. Tel: +61422341845;

E-mail: simonparys@gmail.com

Received 28 May 2013; accepted 17 June 2013

We present a case of acute gastric band slippage with gastric necrosis and massive haemoperitoneum necessitating an emergency surgery. The patient presented with an 8 h history of dysphagia, vomiting and epigastric pain. Initial examination was unremarkable, but within 6 h the patient suddenly deteriorated with a distended peritonitic abdomen. At laparotomy the patient was found to have gastric band slippage, a distended necrotic gastric pouch, a denuded spleen and a massive intraperitoneal haemorrhage of approximately 4 l. A splenectomy was performed to control haemorrhage and sleeve gastrectomy to remove the necrotic pouch. The patient made an uneventful recovery. There are no reported cases of massive intraperitoneal haemorrhage or splenic involvement in cases of gastric band slippage. We believe that the gastric necrosis lead to short gastric and splenic vein thrombus and splenic outflow obstruction. This resulted in a subcapsular haematoma which subsequently ruptured causing acute deterioration.

## INTRODUCTION

Laparoscopic gastric banding is a safe and effective surgical management option of obesity. This restrictive technique is in widespread use in Europe, North America and Australia. We present a case of acute gastric band slippage with gastric necrosis and massive haemoperitoneum necessitating an emergency laparotomy, gastrectomy and splenectomy.

## CASE REPORT

The patient had a Swedish adjustable gastric band inserted laparoscopically using the Pars Flaccida technique several years earlier without complications. Her last fill adjustment was 6 months prior with 5.3 ml *in situ*. Her weight at presentation was 70 kg (BMI 27) having lost 15 kg since band insertion.

She presented to the emergency department with symptoms of acute onset dysphagia, vomiting and epigastric pain lasting 8 h. Examination on presentation revealed only mild epigastric tenderness and all vital signs were within the normal range. A plain X-ray was performed and was suggestive of a slipped gastric band, with O-sign present. An attempt to

remove the gastric fluid was made; however, this yielded only 1 ml of fluid.

The patient remained in the Emergency Department (ED) overnight due to incomplete resolution of her symptoms. Six hours after her presentation to the ED, the patient suddenly became profoundly hypotensive and tachycardic with a distended peritonitic abdomen and was taken for emergency surgery. At laparotomy, the patient was found to have gastric band slippage, a distended necrotic gastric pouch, a denuded spleen and a massive intraperitoneal haemorrhage of ~4 l. No isolated source of active bleeding could be identified. A splenectomy was performed to control haemorrhage and sleeve gastrectomy to remove the necrotic pouch. The patient made an uneventful recovery.

## DISCUSSION

Obesity is becoming an ever-increasing problem and is associated with numerous medical conditions, including diabetes mellitus, hypertension and obstructive sleep apnoea. Adjustable gastric banding surgery is an effective method for assisting in weight control [1]. Slippage of the gastric band is

a possible complication with the reported rates varying considerably. The result is most commonly a chronic, incomplete, obstruction of the gastric pouch [2]. However, there is a small but increasing number of cases of acutely slipped gastric bands with associated with gastric necrosis, including several patient deaths [3–6]. However, a review of the literature reveals no cases of massive intraperitoneal haemorrhage or splenic involvement in such cases. We postulate that the gastric necrosis resulted in thrombosis of the short gastric vessels and this thrombus propagated into the splenic vein causing vascular outflow obstruction in the spleen. The resulting increased pressure in the spleen lead to a massive subcapsular haematoma development. The rupture of the haematoma was the cause of the patient's acute deterioration.

## REFERENCES

1. Lanthaler M, Aigner F, Kinzl J, Sieb M, Caker-Beck F, Nehoda H. Long term results and complications following adjustable gastric banding. *Obes Surg* 2010;**20**:1078–85.
2. Snow J, Severson P. Complications of adjustable gastric banding. *Surg Clin N Am* 2011;**91**:1249–64.
3. Iannelli A, Facchiano E, Sejour E, Baqué P, Piche T, Gugenheim J. Gastric necrosis: a rare complication of gastric banding. *Obes Surg* 2005;**15**:1211–4.
4. Fragkouli K, Mitselou A, Vougiouklakis T. Death-related gastric necrosis after laparoscopic adjustable gastric banding in the early post-operative period. *Diagn Pathol* 2010;**5**:68–71.
5. Landen S, Majerus B, Delugeau V. Complications of gastric banding presenting to the ED. *Am J Emerg Med* 2005;**23**:368–70.
6. Lunca S, Vix M, Rikkers A, Rubino F, Marescaux J. Late gastric prolapse with pouch necrosis after laparoscopic adjustable gastric banding. *Obes Surg* 2005;**15**:571–5.