Interactive case report

A 22 year old man with persistent regurgitation and vomiting: case outcome

Mark Fox, Alasdair Young, Roy Anggiansah, Angela Anggiansah, Jeremy Sanderson

Four weeks ago we presented the case of Mr Neville, a 22 year old student with persistent severe epigastric pain and regurgitation and vomiting after meals (*BMJ* 2006;332:1438, 17 June). Aggressive treatment with acid suppression, prokinetics, and anti-emetics was not effective, and his symptoms led to life threatening weight loss over five months in hospital (*BMJ* 2006;332:1496, 24 June).

Clinical observation suggested he had rumination syndrome, and this was confirmed by physiological measurements. In this condition food is returned to the mouth from the stomach by voluntary, although subconscious, contraction of the abdominal wall; the ruminant is then spat out or swallowed again. The information provided by manometry and impedance measurements was useful in convincing Mr Neville that the problem was under his control. The contractions of the abdominal wall underlying rumination episodes were brought to his attention by resting his hand on his abdomen while he was eating. With insight into the underlying cause of his symptoms, he learnt to suppress these contractions and made remarkable progress with rapid weight gain from 52 kg at diagnosis to 66 kg (body mass index 19) one month later (figure). On discharge he had not brought up food during a full week for the first time for over three years. Mr Neville attended the final day of term celebration at his college and returned to his studies the following term.

Discussion

Rumination is common in infants¹ and people with psychiatric or degenerative mental disorders but also occurs in people who are otherwise well.²⁻⁵ Classically rumination occurs with non-acid food that can be re-swallowed, is not associated with reflux symptoms, and may be considered pleasurable (although socially embarrassing).⁶ However, recent studies have shown that some patients have serious functional disability related to weight loss, absenteeism from school or work, and hospital admission.⁵ This case emphasises the importance of clinical history and observation during eating for patients with persistent regurgitation and vomiting.

Rumination syndrome is not a rare condition, only rarely recognised because many doctors are not aware of it.^{4,5} Rumination should always be considered in the differential diagnosis of persistent regurgitation and vomiting that is resistant to treatment. As in Mr Neville's case, patients may be diagnosed with gastro-oesophageal reflux disease on the basis of pH studies; however, recurrent passage of gastric contents into the oesophagus will result in acid damage, whatever the underlying cause. When doubt remains, or the patient requires "evidence" that the problem is under voluntary control, manometry is diagnostic and clearly distinguishes rumination from volume regurgitation seen in gastro-oesophageal reflux disease (see bmj.com).

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- 5 Chial HJ, Camilleri M, Williams DE, Litzinger K, Perrault J. Rumination syndrome in children and adolescents: diagnosis, treatment, and prognosis. *Pediatrics* 2003;111:158-62.
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This is the final part of a three part case report, which describes the outcome and summarises the comments made by readers during the case presentation. Further responses are welcome through bmj.com

Oesophageal Laboratory, St Thomas' Hospital, London SE1 7EH

Mark Fox
specialist registrar

Roy Anggiansah
physiologist

Angela Anggiansah
director

Department of Gastroenterology, St Thomas' Hospital

Alasdair Young
senior house officer

Jeremy Sanderson
consultant

Correspondence to: M Fox markfox@doctors.org.uk

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Mr Neville's weight chart from hospital admission until discharge

Manometry recordings and explanations of oesophageal actions are on bmj.com