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OC-049 RUMINATION VARIATIONS

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Introduction Rumination syndrome is the voluntary, albeit subconscious return of gastric content to the mouth. It is socially disabling, often leads to repeated, non-diagnostic investigations and can have significant morbidity. High Resolution Manometry (HRM) with observations after drinking or a test meal is a simple, objective way of establishing the diagnosis. A variety of behaviours and manometric findings are associated with rumination. This study describes how these influence patient presentation and may affect treatment.

Methods A retrospective review of 20 patients (M = 8, F = 12, age 21–68) referred for HRM with a final diagnosis of rumination was completed. Predominant presenting symptoms included regurgitation (n = 4), vomiting (n = 9), or suspicion of rumination (n = 7). Recurrent belching was also a feature in some (n = 7). In addition to the return of gastric content, patients described typical dyspeptic symptoms (n = 17) and reflux symptoms (n = 3).

Results HRM revealed normal motility in 14/20, hypotensive in 4/20 and hypertensive in 2/20. Rumination was observed during water swallows in 10, following multiple water swallows in 2 and after a test meal in 8 patients.

In patients with dyspepsia, HRM demonstrated classical rumination ('R waves') in 10/17 (59%), powerful contraction of abdominal muscles forced gastric content across the lower oesophageal sphincter (LOS). Five patients ruminated following a swallow while the LOS was relaxed, making it easy for gastric content to pass. One ruminated with a closed upper oesophageal sphincter leading to bolus 'trapping' and pain, at which point she would induce vomiting. One patient, who had fundoplication as a child, would cough to create the abdominal pressure required to overcome the resistance formed by the wrap.

Some patients with prominent belching and dyspepsia (4/7) exhibited supra-gastric belching with rumination. Air was sucked into the oesophagus by creating a negative intra-thoracic pressure and expelled, without passing the LOS.

In patients with reflux symptoms (n = 3), all ruminated *a few seconds following* the appearance of transient LOS relaxation with common cavity (reflux). Unlike classical rumination these events were often high volume, occur after meals, on exertion and in the supine position.

Conclusion HRM facilitates diagnosis and reveals the behaviour associated with rumination. Ingestion of a test drink and meal increases test sensitivity.

Three key 'rumination variations' were identified:

-Dyspepsia with typical rumination

-Dyspepsia with rumination and supra-gastric belching

-Reflux related rumination.

All may benefit from biofeedback therapy; however, the focus may differ for rumination and supra-gastric belching. Visceral analgesics may ease dyspepsia but proton pump inhibitors or even anti-reflux surgery may be appropriate for reflux related rumination.

Competing interests None.
Keywords high resolution manometry, rumination, supragastric belching, vomiting.