**Introduction** Standard manometry studies diagnose oesophageal dysmotility in patients presenting with dysphagia on the basis of a small number of small volume water swallows. The association of symptoms with abnormal pressure events strongly support the clinical relevance of manometry findings; however, patients report symptoms infrequently with 5–10 ml water swallows. Solid swallows and normal eating behaviour have not entered clinical practice because of the difficulty interpreting the complex pressure events and a lack of control values. The aim of this study was to assess the prevalence of symptomatic oesophageal dysfunction following individual liquid and solid bolus swallows and a standardised test meal in patients presenting with dysphagia and asymptomatic volunteers.

**Methods** 30 consecutive patients referred for investigation of endoscopy negative dysphagia and 23 healthy volunteers underwent HRM (Manoscan 360°, SSI) with 10 × 5 ml water and 5 × 1 cc bread swallows in the upright seated position. A test meal (cheese and onion pie: 500 Kcal, 34 g fat) was provided if patients consented and for 10 healthy volunteers.

**Results** Water and bread swallows were successful in 29/30 patients (12 M:18 F, age 16–86) and all healthy volunteers (11 M:12 F, age 20–56). 10 patients and 10 volunteers completed the test meal. No healthy subject had clinically significant dysmotility or complained of symptoms. 2/29 (7%) patients experienced their typical symptoms with water, 13/29 (45%) with bread (p = 0.023), 8/10 (80%) with the meal and 16/29 (55%) when results of bread and meal were combined (p = 0.008 compared to water swallows).

A change in HRM diagnosis was made in 8/29 (28%) patients on the basis of solid compared to water swallows, of whom 5 (17%) complained of typical symptoms. When a meal was provided, there was a change in HRM findings in 7/10 patients compared to 5 ml water, of whom 4 complained of typical symptoms. When results were combined 10/29 (35%) showed a change in diagnosis and 5 had typical symptoms.

Pathology that would have been missed with water swallows alone included: hypertensive contractility (2), spasm (2), variant achalasia (1) and increased resistance to flow at the gastrooesophageal junction (3). The clinical relevance of 5/8 (62.5%) of these was confirmed with typical symptoms coincident with abnormal pressure events. Two patients with asymptomatic hypotensive dysmotility with water showed normalisation with solid swallows.

**Conclusion** The diagnostic yield and ability to associate symptoms with oesophageal dysfunction is increased with inclusion of solid swallows and a test meal compared to water swallows alone in patients with endoscopy-negative dysphagia.

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