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INCLUSION OF SOLID SWALLOWS AND A TEST MEAL INCREASE THE DIAGNOSTIC YIELD OF HIGH RESOLUTION MANOMETRY (HRM) IN PATIENTS WITH DYSPHAGIA

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R Sweis,^{1,2,*} A Anggiansah,¹ R Anggiansah,¹ J Fong,¹ T Wong,¹ M Fox^{1,3}
¹Gastroenterology, Guy's and St Thomas' NHS Foundation Trust, UK; ²Nutritional Sciences, King's College London, London, UK; ³Nottingham Digestive Diseases Centre, Queen's Medical Centre, Nottingham, UK

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 gastro-oesophageal 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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