PWE-088

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

doi:10.1136/gut.2011.239301.351

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

Introduction Manometry is applied in patients with suspected gastro-oesophageal reflux disease (GORD) to exclude motility disorders as a cause of symptoms. Routine studies use a small number of small volume water swallows, however dysmotility and symptoms are more likely to occur with normal eating behaviour. This approach has not entered clinical practice because of difficulty interpreting complex pressure events

during ingestion of solids and a standardised meal as well as a lack of control values. This study aimed to assess the prevalence of symptomatic oesophageal dysfunction following individual liquid and solid bolus swallows and a standardised meal in patients with reflux symptoms and asymptomatic volunteers.

Methods 45 consecutive patients with predominant reflux symptoms 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. Ambulatory reflux studies were performed in patients.

Results Water and bread swallows were completed in 44/45 patients (16 M:28 F, age 32–76) and all healthy volunteers (11 M:12 F, age 20–56). 18 patients and 10 volunteers completed the test meal. No healthy subject had clinically significant dysmotility or symptoms during the study. There were no symptoms with water swallows. 14/44 (32%) complained of symptoms with bread (p =0.0013), 7/18 during the meal and 16/44 (36%) when results of bread and meal were combined (p=0.0006). Bread swallows and a test meal resulted in a change of manometry diagnosis in 18/44 (41%) patients. In 13 patients dysmotility was present with solid but not water swallows: hypertensive contractility (3), oesophageal spasm (4), resistance at the gastro-oesophageal junction (4), variant achalasia (1) and severe peristaltic dysfunction (1). Conversely, normal peristalsis was seen in 5 asymptomatic patients with hypotensive motility on water swallows. Symptoms were associated with oesophageal dysfunction during the test meal in 7/16 (44%) patients: hypertensive contractility (1), oesophageal spasm (3), and resistance at the gastro-oesophageal junction (3).

Ambulatory reflux studies were completed in 40/45 patients and 18/40 (45%) patients had an objective diagnosis of GORD. A new diagnoses based on symptomatic dysmotility was present in 1/18 (6%) patients with GORD, and 6/22 (27%) patients without GORD (p=0.016).

Conclusion The inclusion of solid swallows and a test meal increased the diagnostic yield of HRM in patients referred for investigation of reflux symptoms compared to standard water swallows, in particular, in the patient group without GORD on reflux studies.

Competing interests R. Sweis Grant/Research Support from: Given Imaging, Reckitt Benckiser, A. Anggiansah: None Declared, R. Anggiansah: None Declared, J. Fong: None Declared, T. Wong: None Declared, M. Fox Grant/Research Support from: Given Imaging, AstraZeneca, Movetis, Consultant for: Reckitt Benckiser.

Keywords GORD, High resolution manometry.