

**Conclusion** This data supports the previous findings that the BO lesion length of greater than 3 cm is associated with the presence of IM. Furthermore, the odds of having IM are significantly reduced in patients from the Indian sub-continent. Ethnicity should thus be taken into account in the future risk stratification of BO patients and requires further study.

#### REFERENCE

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**Disclosure of Interest** None Declared.

#### PTU-176 IMPLEMENTATION OF OBJECTIVE ACTIVITY MONITORING TO SUPPLEMENT THE INTERPRETATION OF AMBULATORY OESOPHAGEAL PH INVESTIGATIONS

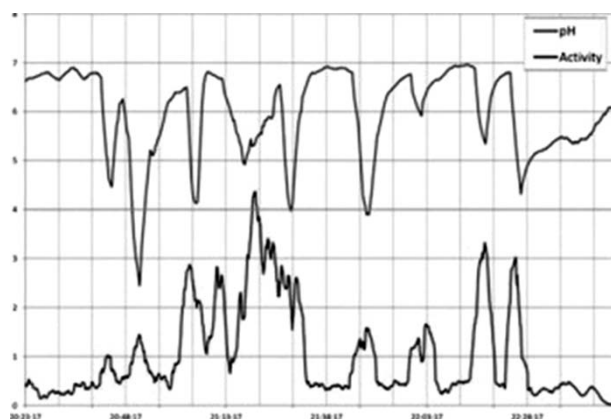
<sup>1</sup>RM Kwasnicki, <sup>2</sup>R Ley Greaves, <sup>1</sup>R Ali, <sup>3</sup>P Gummett, <sup>3</sup>J Hoare\*, <sup>1</sup>G-Z Yang, <sup>1</sup>A Darzi. <sup>1</sup>Hamlyn Centre; <sup>2</sup>Imperial College London; <sup>3</sup>Department of Gastroenterology, Imperial College Healthcare NHS Trust, London, UK

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**Introduction** Conventional catheter-based systems used for ambulatory oesophageal pH monitoring have been reported to affect patient behaviour. As physical activity has been associated with gastro-oesophageal reflux disease (GORD), there is a risk that abnormal behaviour will degrade the value of this diagnostic investigation and consequent management strategies. Our aim was to provide the reporting physician with objective peri-investigational changes in activity, and the means to assess the association between activity and pH during the test, using a wearable activity monitor.

**Methods** Trial registered at clinicaltrials.gov (NCT01507298) and ethics approved (11/LO/1981). Twenty patients listed for 24h pH monitoring underwent activity monitoring using a light-weight ear-worn accelerometer (e-AR sensor, Imperial College London) 2 days prior to, and during their investigation. PH was measured and recorded using a conventional naso-gastric catheter and waist worn receiver. Objectively measured activity levels, including subject-specific activity intensity quartiles, were calculated and compared over the 3 days. Physical activity was added to standard test outputs to supplement interpretation and diagnosis.

**Results** Average patient activity levels decreased by 26.5% during pH monitoring (Range -4.5–51.0%,  $p = 0.036$ ). The amount of high intensity activities decreased by 24.4% (Range -4.0–75.6%,  $p = 0.036$ ), and restful activity increased on average by



Abstract PTU-176 Figure 1

34% although this failed to reach statistical significance (-24.0–289.2%,  $p = 0.161$ ). Some patients exhibited consistent associations between bouts of activity and acidic episodes (Figure 1).

**Conclusion** The results of this study support the previously reported reduction in activity during ambulatory oesophageal pH monitoring,<sup>1,2</sup> with the added reliability of objective activity data. In the absence of more pervasive pH monitoring systems (e.g. wireless), quantifying activity changes in the setting of activity-induced reflux might facilitate recalibration of patient DeMeester scores and therefore more appropriate management of GORD.

#### REFERENCE

- 1 Fass R, *et al.* Effect of ambulatory pH monitoring on reflux-provoking activities. *Dig Dis Sci* 1999;44:2263–9
- 2 Mearin F, *et al.* How standard is a standard day during a standard ambulatory 24-hour esophageal pH monitoring? *Scand J Gastroenterol* 1998;33:583–5

**Disclosure of Interest** None Declared.

#### PTU-177 DUODENAL ADENOMAS: A REVIEW OF THEIR MANAGEMENT AND THE HIGH RISK OF CO-EXISTING COLON CANCER

R Chandel\*, B Brett, M Williams. *Gastroenterology, James Paget University Hospital, Great Yarmouth, UK*

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**Introduction** We reviewed the management of Duodenal adenomas at James Paget University Hospital, Great Yarmouth between 2001 and 2013.

**Methods** 20 patients were included in this study. A standardised proforma was completed for each case and the information was then collated.

**Results** A CT scan was performed in 13/20 patients. 3/20 had CT and Endoscopic Ultrasound. 4/20 had no imaging. 14/20 patients had Endoscopic Mucosal Resection (EMR). 5/20 had surgery. 1/20 case was monitored with annual surveillance OGDs. 11/14 patients had EMR within 6 months of diagnosis. Complete resection was achieved in 11/14. Argon Plasma Coagulation (APC) was used in 3/14.

The American Society of Gastroenterology guidelines<sup>1</sup> recommend routine insertion of prophylactic pancreatic stents for patients undergoing EMR of Ampullary adenomas. 6 of our patients had EMR for Ampullary adenoma and only 1 had a Pancreatic stent inserted. However none of these procedures were complicated by Pancreatitis. 4/14 patients had serious complications following EMR. 3 of these had bleeding from the EMR site while one had a large mucosal defect needing Endoclip application. The 30 day mortality was 0. The frequency of long term follow up was in compliance with the Spigelman scoring system.<sup>5</sup> 4/14 patients had recurrent Duodenal adenomas after EMR.

Various studies have previously demonstrated a high incidence of co-existing Colorectal neoplasms in patients with sporadic Duodenal adenomas.<sup>2–4</sup> The same was observed in our patients. Of the 17/20 patients who had Duodenal adenomas and intact colons, 11 had a colonoscopy. 3 were found to have Colon cancer, 4 had Colonic adenomas and 1 had hyperplastic polyps.

**Conclusion** We recommend imaging for all polyps >1 cm. All patients should have EMR within 6 months of diagnosis. Only 1/6 patients who had EMR of ampullary lesions had a Pancreatic stent inserted. None developed Pancreatitis. 4/14 had serious complications following EMR. Long term follow up was in