# Endoscopy

## Orals

#### OTU-01 THE B-ADENOMA TRIAL: A MULTICENTRE, RANDOMISED CONTROLLED TRIAL OF ADENOMA DETECTION WITH ENDOCUFF VISION

<sup>1</sup>Martin Walls<sup>\*</sup>, <sup>2</sup>Andrew Brand, <sup>1</sup>Wee Sing Ngu, <sup>3</sup>Clive Stokes, <sup>4</sup>Linda Sharp, <sup>2</sup>Zoe Hoare, <sup>2</sup>Nikki Totton, <sup>2</sup>Alexandra Bastable, <sup>5</sup>Pradeep Bhandari, <sup>1,6</sup>Colin Rees, BADENOMA Research Group. <sup>1</sup>South Tyneside Nhs Foundation Trust, South Shields, UK; <sup>2</sup>The North Wales Organisation for Randomised Trials in Health (NWORTH), Bangor, UK; <sup>3</sup>Gloucestershire Hospitals NHS Foundation Trust, Gloucester, UK; <sup>4</sup>Institute of Health and Society, Newcastle University, Newcastle upon Tyne, UK; <sup>5</sup>Department of Gastroenterology, Portsmouth Hospitals NHS Foundation Trust, Portsmouth, UK; <sup>6</sup>Northern Institute for Cancer Research, Newcastle University, Newcastle upon Tyne, UK

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Introduction Adenoma detection rate (ADR) is the most important measure of mucosal visualisation at lower gastrointestinal endoscopy. Higher ADRs are associated with lower post-colonoscopy colorectal cancer (PCCRC) rates with a 3% reduction in PCCRCs with every 1% increase in ADR. In the English flexible sigmoidoscopy screening programme (Bowel scope) there is also significant variation in ADRs across screening centres. Large studies have demonstrated improved detection rates during screening procedures utilising Endocuff Vision<sup>TM</sup> (EV). The aim of this study is to determine the effect of Endocuff Vision on ADR in a flexible sigmoidoscopy bowel cancer screening population.

Methods B-ADENOMA was a multicentre, randomised controlled trial involving 16 English Bowel scope screening centres, performed between February 2017 and April 2018. Patients attending for Bowel scope screening were randomised to Endocuff<sup>™</sup>-assisted Bowel scope (EAB) or Standard Bowel scope (SB). Adenoma Detection Rate (ADR) was compared between trial arms on an intention-to-treat basis. Secondary analyses compared Mean number of Adenomas per Procedure (MAP), Polyp Detection Rate (PDR), characteristics and location of polyps, procedural characteristics between arms and made comparisons with national Bowel scope data. Patient experience, procedure extent and complication rates were assessed for non-inferiority.

**Results** 3222 patients were randomised (53% male) to receive EAB (n=1610) or SB (n=1612). Baseline demographics were comparable between the two arms. ADR in the EAB arm was 13.3% and in the SB arm was 12.2% (p=0.353). Also, no statistically significant differences between arms were found in MAP, PDR, polyp morphology or location. Patient experience and complication rates were similar in both arms. The cuff exchange rate in the EAB arm was 4.2%. ADR in the SB arm was 3.1% higher than the national ADR (9.1%).

**Conclusions** EV did not improve Bowel scope ADR when compared with standard Bowel scope. ADR in both arms was higher than the national ADR. This suggests that, where detection rates are already high, use of EV does not improve detection further. Reasons for the high ADR in the SB arm require further exploration but may include selection effects at centre level and contamination effects at endoscopist level.

### OTU-02 PER-ORAL ENDOSCOPIC MYOTOMY (POEM) FOR OESOPHAGEAL MOTILITY DISORDERS: PREDICTORS OF TREATMENT SUCCESS FROM 103 PROCEDURES

Mehul Patel\*, Shraddha Gulati, Nishmi Gunasingam, Amyn Haji, Bu'Hussain Hayee. *King's* College Hospital Nhs Foundation Trust, London, UK

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Introduction Per-oral endoscopic myotomy (POEM) has gained acceptance as an effective treatment for achalasia and other oesophageal motility disorders but may not be seen as a 'firstline' intervention. Many patients referred for POEM to our institution had, therefore, undergone other therapies and little is known about the influence of this or other factors on treatment outcomes. This study provides an overview of treatment success and safety from our institution.

Methods All patients undergoing POEM since 2013 have been recorded in a registry for baseline characteristics: demographic data, disease classification, previous treatments, manometry, symptoms scores, length of stay (LOS) and procedure parameters. Treatment success was defined as Eckardt score  $\leq$ 3 and/ or reduction by 4 points. Following POEM patients underwent periodic follow-up assessment for: symptoms scores, manometry+pH studies and complications.

**Results** 103 procedures were performed (98 achalasia, 5 other motility disorders; median disease duration 3.0 y (range 0.3 – 25.0), 46(44.2%) with prior therapy. Median procedure time was 75 min and LOS 2 nights. Success was achieved in 82/91 procedures (90.1%) at 3 months, with significant improvement in median Eckardt scores (8 vs 1, p<0.001) and mean lower oesophageal sphincter pressures (24.9 vs 10.1 mmHg, p<0.001). Success was more likely in those without previous myotomy (93.7% vs 73.4%, p<0.05) with non-significant trends for entirely treatment naïve patients (95.0% vs 82.9%, p=0.077) and duration of disease <2 y (97% vs 83.7%, p=0.058). Adverse event rate was 1.9% (surgical emphysema and periprocedural bradycardic episode). One patient had prolonged hospital admission (12d) due to premature opening of the mucosal entry site.

**Conclusions** POEM is an effective and safe treatment modality for achalasia and other oesophageal motility disorders. Treatment success is affected by previous myotomy and may be influenced by duration of disease and previous other therapies, making a case for earlier intervention. To better understand predictors of outcome, patient selection factors and long-term outcomes we will be implementing a European registry for POEM to guide referrers and practitioners.

#### OTU-03 PANCREATICOBILIARY ENDOSCOPIC ULTRASOUND IN ENGLAND 2007–2017: CHANGING PRACTICE, BENEFITS AND HARMS

<sup>1</sup>Dominic King<sup>\*</sup>, <sup>2</sup>Amandeep Dosanjh, <sup>2</sup>Prashant Patel, <sup>3</sup>John Leeds, <sup>3</sup>Manu Nayar, <sup>1</sup>Nigel Trudgill, <sup>3</sup>Kofi Oppong. <sup>1</sup>Sandwell and West Birmingham NHS Trust, Birmingham, UK; <sup>2</sup>University Hospital Birmingham, Birmingham, UK; <sup>3</sup>HPB Unit Freeman Hospital, Newcastle, UK

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Introduction Population level data on complications and outcomes of pancreaticobiliary (PB) endoscopic ultrasound (EUS)