PTH-039 **ENDOSCOPIC MUCOSAL RESECTION OF DUODENAL ADENOMAS: SUCCESS, COMPLICATIONS, RECURRENCE, SURGERY-FREE OUTCOMES IN A UK TERTIARY-CENTRE**

Richard Lord*, Pradeep Munde, Matthew Gold, Lawrence Hamshaw, Jack Kane, Noor Mohammed, Bjorn Rembacken, Ruch Sood. *Gastroenterology department, Leeds NHS teaching hospitals, Leeds, UK*

10.1136/gutjnl-2018-BSGAbstracts.60

Background Duodenal adenomas consist of sporadic and familial adenomatous polyposis (FAP) associated adenomas. Endoscopic mucosal resection (EMR) is the recognised technique when considering endoscopic removal of these lesions, but outcomes from large studies are lacking. Leeds Teaching Hospitals (LTH) is a large tertiary centre that has a local catchment area of more than 8 00 000 people, and to our knowledge this is the largest UK cohort assessing duodenal EMR outcomes.

Methods Retrospective data collection was performed of all patients who underwent duodenal EMR over a 17 year period at LTH. We collected data on patient demographics, lesion characteristics and outcomes including significant complications, recurrence and surgery-free survival. Procedures were performed by a single advanced therapeutic endoscopist or an endoscopy fellow under supervision.

Results A total of 98 patients underwent EMR (sporadic n=23, FAP n=75). Median adenoma size was 12.5 mm (IQR 9.0–30.0 mm), with 46.9% removed en-bloc. Standard EMR was performed in 87 procedures, and ‘pull-within snare’ technique in the remaining 11 procedures. Final lesion histology was TA/TVA with LGD (n=80), TA/TVA with HGD (n=12), intra-mucosal cancer (n=3) and in 3 cases data was missing. Patients with FAP were significantly younger with a median age of 49 years ($p<0.001$).

The overall complication rate was 12.4%. One (1.0%) patient had an intra-procedural bleed which could not be managed endoscopically, delayed bleeding occurred in 6 cases (6.2%) and perforation occurred in 5 cases (5.2%), 3 (3.1%) of which could not be managed endoscopically. Following univariate analysis, ‘pull-within snare’ technique ($p=0.03$), piecemeal resection ($p=0.002$), and increasing polyp size ($p=0.003$) were significantly associated with complications. Adenoma recurrence at first follow up was 25.0%.

Surgery was required in 6 patients (6.2%) within 24 months of their EMR, 4 (4.1%) cases for adenomas >30 mm, 2 (2%) cases for 10–29 mm and no cases for adenomas <10 mm.

Conclusion This is the largest cohort in the UK pertaining to duodenal EMR outcomes, with success, recurrence and complications similar to other world leading endoscopy centres. Adverse outcomes are associated with increasing lesion size, piecemeal resection and EMR technique.

PTH-040 **ENDOSCOPIC DUODENAL MUCOSAL RESURFACING IN TYPE 2 DIABETES – A SINGLE CENTRE EXPERIENCE**

^{1,2}Cormac Magee*, ¹Martin Everson, ²Jessica Mok, ²Janine Makaronidis, ²Giulia Argentesi, ¹Sally Thorpe, ²Pajany Vythelingum, ³Andrea Pucci, ^{3,4}Rachel Batterham, ^{1,5}Rehan Haidry. ¹Department of Gastroenterology, University College London Hospitals, London, UK; ²Department of Metabolism and Experimental Therapeutics, University College London, London, UK; ³Bariatric Centre for Weight Management and Metabolic Surgery, University College London Hospitals, London, UK; ⁴Centre for Obesity Research, Department of Medicine, University College London, London, UK; ⁵Division of Surgery and Interventional Science, University College London, London, UK

10.1136/gutjnl-2018-BSGAbstracts.61

Introduction Evidence from bariatric surgical procedures (e.g. Roux-en-Y gastric bypass) suggests that the duodenum plays a crucial role in glycaemic control in patients with Type 2 Diabetes (T2DM). Duodenal mucosal resurfacing (DMR), a novel endoscopic therapy that resurfaces the duodenal mucosa via hydrothermal ablation, exerts an insulin-sensitising effect likely through modification of nutrient-mucosa signalling. DMR involves placing a catheter in the proximal duodenum distal to the papilla under endoscopic and fluoroscopic guidance. The duodenal mucosa is injected with saline to ‘lift’ it and a balloon is inflated with water and heated to 90°C to circumferentially ablate the mucosa for 10 cm. We describe the first series of patient cases from the UK treated with DMR at University College London Hospitals (UCLH).

Methods Cases were derived from two clinical studies: REVITA 1 a single arm, open-label multi-centre in T2DM, and the open-label phase of REVITA-2 an international, multi-centre, randomised, double-blinded, sham controlled study in T2DM. Eligible patients were adults with T2DM and HbA1c of 7.5%–10.0% on ≥ 1 oral glucose lowering medication. Baseline blood tests were collected and following a 4–6 week run-in period, patients were treated with the DMR procedure. Patients received dietary advice were given a specific 2 week post procedure diet. Blood tests were analysed at regular intervals following the procedure to assess changes in HbA1c over time. Hepatic transaminases were also measured and calculations were made for Homeostasis Model Assessment index (HOMA-IR) – a measure of insulin resistance. Information on adverse events was recorded at each visit.

Results A total of 11 patients (n=5 female, 58 ± 11 years) were treated with DMR at UCLH from May 2015 – Dec 2017. Mean ($\pm$ SEM) change in HbA1c at 3 months post DMR was 0.5% (± 0.2) for all patients and -0.7% (± 0.2) when one patient was excluded for whom gliclazide had to be stopped due to symptomatic hypoglycaemia in the month following DMR. A total of 5/11 patients completed 6 and 12 months of follow-up with mean changes in HbA1c of -1.3% and -1.5% respectively. Favourable directional changes were also observed in HOMA-IR and hepatic transaminases. Patients tolerated the procedure well and no SAEs or UADEs were reported. Two of the eleven patients (18%) patients experiencing transient constipation.

Conclusion Based on our centre’s experience, DMR appears to provide a safe and effective method of improving glycaemic control in patients with T2DM. We continue to enrol patients in the REVITA-2 trial and the results of this study will be crucial in determining the effectiveness and durability of DMR.

PTH-041 **PROSPECTIVE STUDY OF THE DIAGNOSTIC YIELD FROM 20G FNB NEEDLE IN ROUTINE UPPER GI AND HPB LESIONS**

Nazar Aslam*, Elaenor Liu, Sameer Shaktawat, Venkat Mahesh. *Blackpool Victoria Hospital, Blackpool, UK*

10.1136/gutjnl-2018-BSGAbstracts.62

Introduction Improvements in the EUS FNA and FNB needle design and optimisation of tissue acquisition techniques have resulted in better diagnostic yield (DY). In addition, recently there has been considerable interest in histological processing of tissue acquired using newer ‘core’ FNA needles. At BSG 2016 we provided preliminary data on DY of tissue acquired using