PTH-054 FEASIBILITY OF NON-INVASIVE NASAL VENTILATION (THRIVE) FOR PROPOFOL-INDUCED SEDATION IN THERAPEUTIC UPPER GASTROINTESTINAL ENDOSCOPY

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Background Pharyngeal conditions such as Zenker's Diverticulum (ZD) increase with age and may be amenable to endoscopic therapy. However, therapy is traditionally performed under general anaesthesia (GA) which requires ventilatory support and may preclude therapy in frailer patients. Transnasal Humidified Rapid-Insufflation Ventilatory Exchange (THRIVE) is a non-invasive nasal method of ventilation which obviates the need for tracheal intubation. However, evidence supporting the feasibility of THRIVE for in endoscopic procedures is lacking. This study aimed to assess the feasibility, efficacy and safety of THRIVE as an adjunct to deep sedation in endoscopic pharyngeal and upper oesophageal procedures.

Methods In this prospective study, consecutive patients undergoing therapeutic endoscopy of the pharynx and upper oesophagus between June 2016 and March 2018 were included. All procedures were performed under deep sedation with propofol and/or remifentanyl in endoscopy unit as a day case. For ZD, the pharyngeal pouch and the stomach were cleared of debris to reduce the risk of aspiration before sedation was up titrated to facilitate therapy. Sedation related adverse events and the total dose of sedative drugs used were recorded.

Results A total of 50 patients were included for analysis, with a mean age of 71.1 (range 31–93) and male patients comprising 58%. 46% were categorized as ASA grades I-II, 48% Grade III and 6% as Grade IV. The median procedure time was 20 minutes. 83% of patients were sedated with both propofol (median dose 103 mg) and remifentanyl (median dose 167 mcg) using a target controlled infusion under specialist anaesthetic supervision. THRIVE was commenced in all patients, with none requiring conversion to invasive ventilation. The commonest sedation related adverse event was transient hypotension (38%) followed by bradycardia (8%) and hypoxia (8%). No procedures were abandoned due to complications. Patients achieved full post-procedure recovery from sedation after a median of 5 minutes.

Conclusions Deep sedation with THRIVE proved to be a useful and safe technique for advanced therapeutic upper GI endoscopy. The role of THRIVE may be generalisable to other invasive therapeutic modalities involving high-risk patients such as ERCP.

PTH-055 BOUGIECAP DILATATION DEVICE: NOVEL ENDOSCOPIC METHOD FOR TREATMENT OF OESOPHAGEAL STRICTURES-RESULTS FROM A MULTICENTRE STUDY

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Introduction Benign strictures in the upper GI tract are often treated endoscopically using Savary-Gillard bougie dilators,

which provide tactile feedback. However the drawback to this technique is the lack of direct optic feedback and the need for fluoroscopy during the procedure. A novel device, BougieCap (Ovesco, Germany), allows both tactile and optic feedback of the dilatation procedure without the need for fluoroscopy. The aim of this study was to assess the safety and efficacy of this device in a prospective cohort of patients.

Methods Patients with benign strictures of the oesophagus and with clinical symptoms of dysphagia were recruited from 3 endoscopy centres in the UK and Germany for planned dilatation with the BougieCap. The device is a single use transparent conical cap which is fixed to the tip of the endoscope. It comes in different sizes to facilitate dilatation to varying diameters. Once in place, the endoscope is inserted and positioned in front of the stricture. Under direct vision, pushing forward and rotating with the endoscope enables the conical cap to dilate the mucosa in the area of the stricture by the conversion of longitudinal force into radial force vectors. Dilatation could be repeated sequentially with a larger sized cap if necessary. The primary outcome measure was technical success of dilatation. Secondary outcome measure was improvement in symptoms of dysphagia as assessed by the Dysphagia Handicap index (DHI) before and 14 day after the bougienage procedure and adverse events.

Results 79 patients (M/F 41/38) with benign oesophageal strictures underwent the procedure between February 2018 to January 2019. Aetiology of strictures were peptic 52% (n=40), radiation 25% (n=19), anastomotic 10% (n=8), caustic 7% (n=5), EoE 4% (n=3), post-ESD 3% (n=2). Mean diameter of strictures was 6 mm (± 2.9). Endoscopic bougienage was successful in 97.5%. In 2 cases, with a narrow long stricture, bougienage failed because of high resistance at the site of the stricture causing buckling of the endoscope in the pharynx. Symptoms of dysphagia improved after bougienage (53.6 points. d0 v 26.4 points d14, $p < 0.01$). Adverse events were loss of BougieCap in the stomach in 2 cases. No severe adverse events were reported.

Conclusions Endoscopic treatment of benign strictures using the BougieCap enables direct visual and tactile control of the bougienage procedure and therefore of mucosal damage within the area of strictures. This might help to adapt treatment even more precisely to the stricture. Symptoms of dysphagia are improved in short-term follow-up.

PTH-056 MORTALITY & READMISSION: A DESCRIPTIVE STUDY OF JAG ENDOSCOPY UNIT DATA

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Introduction As part of the JAG accreditation process, services are required to provide evidence that they monitor and act upon 30-day mortality (30-DM) and 8-day readmission (8-DR) following endoscopy. This data is currently not analysed or shared in any systematic way other than at unit level. The aim of this study was to gauge current trends across multiple centres, informing further work as part of the ISREE (Improving Safety and Reducing Error in Endoscopy) strategy.

Methods A retrospective analysis of JAG 30-DM and 8-DR evidence from 2013–18 was undertaken. Heterogeneous data