EMR for Early Barrett’s Neoplasia: 15 Years of Experience from a UK Tertiary Referral Centre

Introduction
Endoscopic mucosal resection (EMR) is a widely used therapy for visible dysplastic lesions associated with Barrett’s oesophagus (BO) and intramucosal adenocarcinoma (IMC). This study evaluates the efficacy and safety of a single high-volume UK tertiary centre with 15-year experience.

Methods
A retrospective review was conducted of patients referred to Nottingham University Hospital between 2004–2019 for EMR with dysplastic BO visible lesions or IMC. The main outcomes were endoscopic resection success rates, long-term recurrence rates, complications during the treatment phase, surgery rates, median follow-up prior to discharge from tertiary centre and tumour-related deaths.

Results
A total of 309 lesions were resected in 212 patients, median age was 68.1±9.4 years; the male:female ratio was 5:1. Median BO length was C2 (IQR:6) M4 (IQR:6) and 76.2% of lesions were at the 12 to 6 o’clock position. The most common lesion was Paris IIa (63.4%) and the median size was 10 mm (3–70). Most procedures were done under intravenous sedation as a day-case with the ligate and cut technique (93.2%) and the Duette® multi-band mucosectomy device (88%). APC was used in addition to EMR in 5.4% of cases. Complete resection rates were 95.5%. Prophylactic measures to prevent bleeding were undertaken in 11.3%. Significant complications requiring admission and further treatment was 3.8%: bleeding (2.3%) and perforation (0.3%) with a median length of stay of 1 day (1–8). Success rates were 2.6% requiring a median of 1 (IQR:1.75) dilatation. The most commonly resected histological grade was IMC (48.1%), high grade dysplasia (37%) and low grade dysplasia (6.5%). The majority of tumours were stage T1a (86.7%), 22% of patients with confirmed adenocarcinoma had an indication for surgery and over half of these underwent surgery. Post EMR 72.5% had additional therapy for the remaining BO. After a median follow-up of 32 months (IQR 43.6) metachronous lesions developed in 10.7% of patients. 95% of these were successfully treated with endoscopic or surgical therapy. The survival rate over the study period was 85.7%, with cause of death attributed to unrelated disease (11.3%) and oesophageal adenocarcinoma (2.8%).

Conclusions
This real-world data demonstrates that EMR is a minimally invasive, safe and effective treatment for Barrett’s neoplasia that can be delivered in a day-case setting. It allows accurate local staging with the option of surgery for locally advanced disease.

Gastrooduodenum
Orals

OTU-15
Intermittent Administration of PPI Is Not Inferior to Infusion Following Acute Non-VaRiceal Upper Gastrointestinal Bleeding

Introduction
Despite the ubiquitous use of PPI therapy following acute upper gastrointestinal bleeding, the optimal dose and method of administration remains controversial.

Aim
To determine whether PPI therapy delivered intermittently was non-inferior to continuous infusion; with regard to rebleeding, mortality, need for surgery and length of hospital stay, in acute upper gastrointestinal bleeding.

Study design
Systematic Review and Meta-analysis

Method
The MEDLINE database was searched with a predefined search strategy. RCTs were considered eligible if they included a group treated with a stat dose of PPI followed by 8 mg/hr infusion for 72 hours compared to a group treated with an intermittent PPI regimen, following endoscopy for acute upper gastrointestinal bleeding.

Results
Abstracts were screened against eligibility criteria. Two reviewers trained in critical appraisal reviewed the full text articles, extracted data and applied the GRADE tool to assess risk of bias.

Data was synthesised using Mantel-Haenszel fixed-effects method. Heterogeneity was assessed with the I² statistic and examined as per the study protocol. Non-inferiority margins were pre-defined as 0.962, 0.934 and 0.914 for re-bleeding, need for surgery and mortality respectively. This was determined as 20% the difference from the odds ratio to the lower bound of a 2-sided 95% CI taken from infusion versus placebo meta-analysis.

Results
26 RCTs were included (n=4368). Significant heterogeneity was found for the outcome measure length of hospital stay and was not resolved by sub-group analysis or the use of a random-effects model. The risk of rebleeding was lower in the intermittent administration group compared to infusion, although was not statistically significant at either 72 hours (OR 1.03 95%CI 0.77–1.37) or 30 days (OR 1.05 95%CI 0.85–1.29). This revealed non-inferiority as per the predefined margin. The risk of needling surgery was higher in the intermittent group (OR 0.87 95%CI 0.63–1.20), whilst this was not statistically significant it did not meet the strict margin set to determine non-inferiority. The risk of mortality also favoured intermittent administration (OR 1.13 95%CI 0.81–1.58) and showed non-inferiority.

The overall risk of bias was high in 5, undetermined in 6 and low in 15 of the RCTs.