

conscious sedation: average midazolam dose was 7 mg; fentanyl 141 mcg; buscopan 24 mg.

Macroscopic assessment of strictures and indeterminate lesions correlating with malignancy had a sensitivity, specificity and accuracy of 90% (95%CI 79–97), 83% ((95% CI 71–96) and 86% (78.5%–92%) respectively. Histological correlation with final diagnosis increased over the study, from 77% in 2015 to 87% in 2017. Complete stone clearance rose from 50% in 2014 to 85% by 2017. 70% of patients had complete stone clearance at 1st attempt. 4.3% of patients developed complications post SOC. Post-ERCP pancreatitis (PEP) was the commonest adverse event (2.4%; n=5/206).

**Conclusions** The role of SOC in tertiary centres for identification of biliary lesions and management of difficult choledocholithiasis continues to grow. The South West service is centralised to one centre with a clear improvement in diagnostic accuracy for malignancy and stone clearance rates. Diagnostic accuracy rates mirror figures quoted in literature, most recently Japanese data in 2017.<sup>1 2</sup> Adverse events were lower than those widely reported, but PEP remains the commonest cause. SOC under conscious sedation is both safe and effective.

## REFERENCES

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### PTH-034 DO FAECAL CALPROTECTIN LEVELS INFLUENCE COLONOSCOPY RATES?

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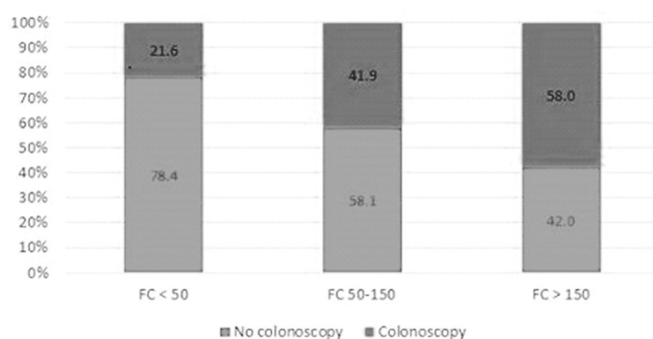
**Introduction** Faecal Calprotectin (FC) often helps clinicians to decide the need for colonoscopy in patient with variety of bowel symptoms. Many clinicians are uncomfortable with intermediately raised FC and tend to opt for colonoscopies to avoid the risk of missing an organic disease. The aim of this audit is to assess the influence the FC level on the rate colonoscopies and pathology found.

**Methods** Data were collected from Northampton General Hospital database for all FC specimens tested between April 2015 and March 2016. We excluded all IBD patients and patients aged 18 and under. We compared patients who had an intermediately raised FC (IRFC) results (51–150), patients with significantly raised FC (SRFC) results ( $\geq 151$ ) and a selected manageable sample with negative FC ( $\leq 50$ ).

**Results** 2169 patients were tested for FC. 501 had raised FCs. 79 known IBD patients were excluded. The remaining were 217 patient with IRFC and 205 with SRFC. 111 of the FC negative group from August 2015 were studied.

Colonoscopies were done in 91 patients (42%) of the IRFC group, compared to 119 patients (58%) of SRFC. 24 patients (22%) with negative FC had colonoscopy.

Age and gender had no influence on the colonoscopy rate, but FC significantly influenced the rate of colonoscopy referral ( $\chi^2$  test,  $p < 0.0001$ ).



**Abstract PTH-034 Figure 1** Effect of faecal calprotectin on colonoscopy rate

96% of the patients scoped with FC  $\leq 50$  had normal colonic mucosa; one patient aged 66 had an adenoma. 78/91 (86%) patients with IRFC, had normal colons, 6 patients were newly diagnosed with IBD and 7 patients were found to have other colonic pathologies. This included 2 cancers seen in patients aged 42 and 55 who had weight loss or rectal bleeding. In the SRFC group, 70/121 (58%) had normal colons. 30 patients (25%) were newly diagnosed with IBD and 21 patients were found to have other colonic pathologies including 6 cancers.

**Conclusions** Faecal calprotectin significantly influences the rate of colonoscopy referral and outcome. There was good evidence to support colonoscopy in patients with FC  $> 150$ , but 86% of patients had normal colons with FC of 51–150 and a repeat FC in the absence of warning symptoms would be reasonable, particularly in younger patients.

### PTH-035 COFFEE GROUND VOMIT: DOES IT JUSTIFY AN URGENT ENDOSCOPY?

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**Introduction** Coffee ground vomit is vomit that looks subjectively like coffee grounds. It is thought to occur due to the presence of coagulated blood in the vomit and hence is a common indication for inpatient admission and thereafter endoscopy. In an increasingly stretched inpatient endoscopy service it is important not to over burden it with endoscopies that could be performed safely as an outpatient.

Therefore, our aim is to evaluate the need for inpatient gastroscopy in patients who are deemed to have coffee ground vomiting. We hypothesise that patients with coffee ground vomiting do not have significant upper gastro intestinal bleeding requiring endoscopic intervention.

**Methods** A single centre, retrospective analysis was performed on patients endoscoped for the primary indication of coffee ground vomiting. Data was collected and scrutinised from the Electronic Patient Records (EPR) and Unisoft endoscopy-reporting tool at Barnet and Chase Farm Hospitals, Royal Free London for 12 months of 2017. Gastroscopy reports were studied to see whether endoscopic therapy was required (defined as use of adrenaline injection, banding, clips,

haemospray or gold probe). EPR was subsequently used to assess whether these patients had a significant drop in their haemoglobin (Hb) defined as a Hb drop  $\leq 20$  g/dl. Two independent researchers carried this out.

**Results** There were 2618 gastroscopies during the study period. Of these, 37 were indicated due to coffee ground vomiting with 29 being performed as an inpatient. Of these 29 patients, 27 (93%) had a significant drop in their Hb level prior to gastroscopy. One (3%) patient required endoscopic therapy. This patient had significant co-morbidity of ischaemic heart disease, hypertension, aortic valve replacement as well as a drop in Hb.

In total, 12 patients had a diagnosis of oesophagitis, 3 had erosive gastritis, 3 non erosive gastritis, 1 oesophageal ulcer, 3 duodenal ulcers, 3 non erosive duodenitis, 1 pyloric ulcer and 1 hiatus hernia. 4 gastroscopies were completely normal. There were no patients with cancer diagnosis. Each diagnosis was reported separately if the report contained more than one diagnosis.

**Conclusions** From this study we conclude that in the majority of patients endoscoped for coffee ground vomit do not require intervention during endoscopy. This study confirms our hypothesis and adds weight to the notion that patients with coffee ground vomiting do not necessarily require inpatient gastroscopy despite a significant Hb drop. If findings from this study were to be repeated in other centres we may be able to discharge stable patients with coffee ground vomiting to early OPD endoscopy thus reducing length of stay and pressure on already stretched inpatient emergency workload.

**PTH-036** **SPYGLASS™ DS CHOLANGIOSCOPY UNDER CONSCIOUS SEDATION FOR TREATMENT OF DIFFICULT STONES – A NORWICH EXPERIENCE**

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**Introduction** The use of Per Oral Cholangioscopy (POC) and subsequent Electrohydraulic Lithotripsy (EHL) under direct visualisation provides a useful adjunct to treat difficult biliary stones when conventional Endoscopic Retrograde Cholangiopancreatography (ERCP) methods have failed. Because of the length and complexity of these cases, a general anaesthetic is often the preferred choice of sedation. Herein, we describe our early experience of using the SpyGlass DS cholangioscopy system (Boston Scientific, Marlborough, MA, USA) in a tertiary centre to treat difficult stones under conscious sedation, assessing whether this affected efficacy and safety of POC.

**Methods** A retrospective analysis was performed of all cases where POC was used for difficult biliary stones from September 2016 to December 2017 at a teaching hospital. Cases performed under general anaesthesia were excluded. All patients received periprocedural prophylactic antibiotics, usually intravenous Ciprofloxacin 400 mgs. Rectal non-steroidal anti-inflammatory drugs were administered in all patients unless contraindicated and 5 days of oral antibiotics were given after the procedure. Sedation use, success rates and complications were documented.

**Results** 26 cases were identified, including referrals from other centres. Median age of patients undergoing POC was 77 years old (range 60–95). Patients had a median of 2 previous ERCPs (range 0–11) prior to POC. The median dose of

midazolam administered was 4 mg (range 2–9 mg) and of pethidine was 50 mg (range 0–125 mg). None of the patients required the administration of reversal agents (flumazenil or naloxone).

Indications include extrahepatic stones (73%), intrahepatic stones (23%) and cystic duct stone (4%). Successful duct clearance was achieved in 20/26 (76%) cases, with the use of EHL and subsequent extraction balloon. 4/26 cases required additional mechanical lithotripsy post EHL and 1 case required sphincteroplasty.

We did not achieve intended therapy in 6/26 cases. Reasons for this include: partial stone clearance only (3/6), technical difficulty (stones in second order ducts and inability to apply EHL) (2/6) and equipment failure (1/6). With regards to partial stone clearance cases, 1 patient had a successful repeat procedure with EHL, with the other 2 patients awaiting repeat procedures.

There were no complications recorded.

**Conclusions** Our data of performing POC under conscious sedation has shown success rates in stone clearance and safety comparable to published outcomes of cases performed under general anaesthesia. Conscious sedation for POC remains a viable option, especially in an increasingly high-risk anaesthetic population and where a dedicated anaesthetist is not readily available for such cases.

**PTH-037** **HIGH STENT MIGRATION RATES DESPITE ANCHORING: A BOURNEMOUTH EXPERIENCE IN BILIARY SELF-EXPANDABLE METAL STENTS**

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**Introduction** Endoscopic biliary drainage is effective in 90 percent of all attempted cases of biliary strictures and 80 percent of malignant biliary strictures. It carries lower morbidity compared to surgical and radiological approaches. Our aim is to review our practice of biliary self-expandable metal stents (SEMs) insertion in a high endoscopy volume district general hospital looking into stent related complications and benign biliary stricture remodelling.

**Methods** 185 endoscopic retrograde cholangiopancreatography (ERCP) with biliary SEMs insertion were performed in 166 patients at the Royal Bournemouth Hospital between January 2010 and November 2016. We retrospectively reviewed the indications of biliary SEMs insertion, early and late stent related complications. Early complication is defined as adverse events and stent occlusion or migration within the first 7 days of stent deployment.

**Results** Out of 185 ERCPs, 153 were done in 142 patients with malignant strictures, 27 done in 19 patients with benign strictures and 5 done for 5 patients with indeterminate strictures. 122 uncovered SEMs (UCSEMs) were inserted in malignant strictures whereas 30, 22 and 4 fully covered SEMs (FCSEMs) inserted in malignant, benign and indeterminate strictures respectively. Early complications from SEMs insertion include biliary infection (3.24%), pancreatitis (1.08%), bleeding (1.08%), perforation (0.54%), and failure of initial ERCP requiring repeat procedure (1.08%) across all biliary strictures. Rate of stent dysfunction in UCSEMs, FCSEMs and combined plastic and FCSEMs were 17.1%, 37.5% and 33.3% respectively. 12 out of 17 patients had benign strictures remodelled, with mean time from index ERCP to remodelling being 50.5 months (range 21.1–137.8 months). Benign stricture