OUTCOMES OF ENDOSCOPIC STENTING FOR PROXIMALLY MIGRATED PANCREATIC STENTS

Methods Prospective study whereby patients with failed stone extraction by conventional techniques (sphincterotomy, sphincteroplasty - Boston CRE Balloon 10–20 mm, lithotripsy - Olympus LithoCrushV, plastic stenting - 2 double pigtail stents 7–10Fr) underwent temporary fcSEMS insertion (Boston Wallflex 10 mm × 6 cm or 8 cm) alongside the complex stone for at least 4 weeks. Follow up ERCP was arranged and the fcSEMS was removed and stone extraction reattempted. Stones were classified as Cotton Grade 2 (<10 mm) or 3 (>10 mm) with both cannulation and extraction rates assessed as ITT and per protocol.

Results Over a 36 month period 311 ERCPs were performed on 271 patients with CBD stones (238 Cotton Grade 2, 81 Cotton Grade 3). Cannulation at 1st ERCP was 95.2% (258/271). Stone clearance at 1st ERCP was 82% overall (221/271); 86% (179/209) for Cotton Grade 2 and 68% (42/62) for Cotton Grade 3. Stone clearance at 1st or 2nd ERCP was 91% overall (247/271); 94% for Cotton Grade 2 (196/209) and 82% for Cotton Grade 3 (51/62). Using conventional techniques 24 patients did not achieve CBD clearance of which 13 did not have a repeat ERCP (non-attendance, frailty or death).

A fcSEMS was inserted in 11 patients (stone size 9–33 mm, age range 59–87 years). In 10 patients CBD clearance was achieved after a single SEMS insertion. With one patient a second fcSEMS insertion was required for a particularly large stone (35 mm) which did not fully fragment after the first procedure. Pancreatitis, perforation and cholangitis were not experienced in any of the patients in which a fcSEMS was inserted. One patient with a fcSEMS was later diagnosed with an extrabiliary cholangiocarcinoma but this was after CBD clearance had been achieved.

Conclusions The introduction of fcSEMS in a unit with cannulation rates and stone clearance rates above those mandated by the BSGE working group have resulted in very high stone extraction rate (95% by ITT and 100% by per protocol analysis). Only one adverse event was noted in this study which is felt unlikely to be related to fcSEMS insertion. We suggest larger studies should be conducted to further evaluate the efficacy and safety of FCSEMS for ‘complex’ stones together with a formal health economic analysis.

OUTCOMES OF ENDOSCOPIC STENTING FOR MALIGNANT DUODENAL OBSTRUCTION – EXPERIENCE OF A SINGLE CENTRE SERVICE

Introduction Duodenal obstruction may occur as a complication of duodenal, locally advanced or metastatic cancer. The resulting gastric outlet obstruction may reduce quality of life and life expectancy and the physiological milieu of malnutrition may interrupt palliative chemotherapy. We aim to evaluate the technical and clinical outcomes of patients undergoing duodenal stent placement for malignant duodenal obstruction.

Methods Retrospective study of all patients referred for endoscopic duodenal stent placement from Jan 2014 - Jan 2018. Data was collected from endoscopy procedure records and electronic patient records. All patients with intent for duodenal stenting were included. Technical success was defined by endoscopic or radiographic evidence of satisfactory stent position. Outcome measures included removal of enteral tube (NG/NJ), cessation of vomiting, recommencement of oral nutrition, initiation or resumption of chemotherapy, complications and overall survival.

Results 50 patients were referred for duodenal stenting (F=31, median age 68 years). CT scans were available for all patients and all cases were reviewed within our specialist MDM. The level of the obstruction was D1 (26/50), D2 (17/50) and D3 (7/50). Aetiology of malignant obstruction was: pancreatic (n=15), gastric (n=7), ovarian (n=6), cholangiocarcinoma (n=5), duodenal (n=5), colorectal (n=3), breast (n=2) and hepatocellular (n=1). Stenting was attempted in 48 patients (2 were deemed unfit). Successful stent placement was achieved in 43/48 (90%) of patients, with a failure to stent the remaining 5 patients due to an inability to cross the stricture with a wire. A total of 51 uncovered, self-expanding 22 mm diameter metal stents were placed in 43 patients (1 patient required 2 stents at the index procedure, 6 patients required 1 further stent and 1 patient required 2 further stents). The median stent length was 9 cm (range 6–12 cm). Technical success rates were 90%. Clinical success rates were as follows: Subsequent removal of enteral tube post-procedure 68%, cessation of vomiting 64%, recommencement of oral diet 58%, further chemotherapy 29%. Overall 28 day survival was 85% and 6 month survival was 33% (median survival 66 days). There were no immediate complications following stent placement. 1 patient developed biliary sepsis 5 days post-stenting (previously normal LFTs) and died within 28 days. 3 patients developed obstructive jaundice following stenting (at 4 months, 8 months and 21 months), which was successfully treated with percutaneous stenting in all cases.

Conclusion Providing a guidewire can be passed across the stricture, duodenal stenting for malignancy has a high technical success rate in our centre. Early clinical benefit is seen in the majority of patients, and of the 41 patients alive at 3 months, only 3 (7%) required re-intervention during this period. At 6 months, 16 patients were alive, 7 of whom (44%) had required re-intervention. This single centre experience demonstrates high technical and clinical success rates for stenting in patients with malignant duodenal obstruction, with benefit maintained well beyond 3 months. In those patients that survived >6 months, half had further chemotherapy.

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We describe our experience in the endoscopic management of migrated PS.

Methods A retrospective review of all ERCPs at our tertiary unit from January ‘13 –February ‘19 was performed to identify cases of migrated PS.

Results Twelve patients were identified; 10 received PS placement at other UK hospitals, 1 abroad and 1 at our unit. PS indications were prophylaxis of post-ERCP pancreatitis (PEP) in 9 and following pancreatic endotherapy in 3 (one for sphincter dysfunction, one for ductal stricture and one for cyst drainage). The migrated PS were 5 cm (n=11) or 7 cm (n=1) long with diameter of 3Fr (n=1), 5Fr (n=10) and 7Fr (n=1). Seven were straight and 5 single pigtail. 9 PS migrated after reported correct placement (of which 6 (67%) were straight). Two were inadvertently deployed within the pancreatic duct (PD); in one case there was no information regarding placement. The site of PS migration was within the pancreatic head (n=3), body (n=3) and tail (n=6).

After MDM review one patient was referred directly for surgery where a PD stricture precluded endoscopic access. Endoscopic removal was attempted in 11 patients and successful in 9 (82%). 7 patients required two procedures. The median interval from stent placement to retrieval was 5 weeks (range 2–20). All patients had a previous pancreatic sphincterotomy. Techniques used for successful retrieval were: stent grabbers (n=3), extraction balloon/stent grabbers (n=1), snare/stent grabbers (n=2) and pancreatoscopy with SpyBite™ forceps (n=3). Endoscopic removal was unsuccessful in 2/11 patients where pigtail stents had hooked into a side branch. In all cases a 5 cm 3Fr prophylactic PS was placed post retrieval and 8 received rectal diclofenac (one contraindicated). Mild post-ERCP pancreatitis (PEP) occurred in one case.

Conclusions Endoscopic retrieval of proximally migrated PS was successful in 82% of patients. Migrated PS retrieval is challenging, and should only be attempted by endoscopists experienced in pancreatic endotherapy following case review within a specialist MDM. The mechanism of migration is unclear and spontaneous proximal migration of an appropriately placed single pigtail PS is unlikely to occur. Apparent migration in these cases most likely arises from incorrect deployment, potentially due to difficulty distinguishing the stent from the pushing device, emphasising the need for caution during PS placement. The optimal retrieval technique depends upon PS type, position, and PD anatomy. In our experience use of an extraction balloon alone was never successful. Failure of endoscopic retrieval was highest with pigtail stents and those >2 cm from the papilla.

**Methods** Data from the electronic patient record was analysed for all patients who underwent duodenal polyp resection from June 2013 were included (excl. familial polyposis cases). Procedures were performed by either one of two endoscopists with experience in endoscopic resection. Accepted definitions of technical success, major adverse events and recurrence were used.

**Results** 31 patients (15F; mean age 67.9± 10.4 y) were included. The mean polyp size was 38.8±23.6 mm, with most (n = 26) located within D2. More than half were laterally spreading lesions (n=16). The mean method of resection was with piecemeal EMR (n=24), with 5 removed by en-bloc EMR and 2 by ESD. Histology revealed tubular adenoma low grade dysplasia (n = 12), tubulovillous adenoma with low grade dysplasia (n = 11) and neuroendocrine tumour (n = 3). ER was successful in 28/31 cases (90.3%). Mean size in 3 incomplete resections was 93 mm, with 1 patient referred for surgery, 1 repeat ER and 1 did not proceed due to a more pressing medical diagnosis.

3/31 had peri-procedural complications: endoscopically-treated perforation in 2 (6%) and minor bleeding in 1. 2/31 patients (6%) experienced delayed bleeding, with one patient requiring a repeat OGD but no intervention and the other requiring transfusion of packed red blood cells and observation in hospital. There was no procedure related mortality. At time of writing 4 patients had not yet had surveillance OGD and to date 5 patients (20.8%) had recurrence all treated endoscopically.

Conclusion ER of duodenal polyps is feasible and safe. Our single centre experience is on par with what is published in the literature in regards to technical success and adverse events. A prospective analysis would be of value to guide patient selection, optimal treatment and surveillance protocols.

**Introduction** Co-presentation with anaemia and acute coronary syndrome (ACS) is common. Anaemia is an independent risk factor for poor outcomes after ACS. Bleeding is the most common non-cardiac complication of ACS therapy. There are few studies existing on these patients. In this retrospective study we reported the incidence and characteristics of anaemia in patients presenting with NSTEMI (n = 55) or STEMI (n = 58) between 2015 and 2016 to a large tertiary centre.

**Methods** Patients were identified using an ICD10 code-based search. Data were collected from electronic patient notes and the pathology system. Endoscopy reports one year prior to and after the ACS were reviewed.

**Results** 45% patients with NSTEMI and 28% STEMI were anaemic at presentation with ACS. This was a microcytic anaemia in 36% patients. Iron saturations were tested or a recent result was available in 29% patients and ferritin was tested in 19% patients. These tests were more frequently performed in patients who had NSTEMI. When tested, iron saturations were low in 76% patients and ferritin was low in 29%.

**Introduction** Current literature estimates that complete endoscopic resection (ER) of duodenal adenomas can be achieved in 79–100% of cases, but complication rates are high and adenoma recurrence is encountered in up to 37% of cases (Baxford & Bhandari, 2012). We present our retrospective experience.

**Methods** A retrospective review of all ERCPs at our tertiary unit from January ‘13 –February ‘19 was performed to identify cases of migrated PS.

**Results** Twelve patients were identified; 10 received PS placement at other UK hospitals, 1 abroad and 1 at our unit. PS indications were prophylaxis of post-ERCP pancreatitis (PEP) in 9 and following pancreatic endotherapy in 3 (one for sphincter dysfunction, one for ductal stricture and one for cyst drainage). The migrated PS were 5 cm (n=11) or 7 cm (n=1) long with diameter of 3Fr (n=1), 5Fr (n=10) and 7Fr (n=1). Seven were straight and 5 single pigtail. 9 PS migrated after reported correct placement (of which 6 (67%) were straight). Two were inadvertently deployed within the pancreatic duct (PD); in one case there was no information regarding placement. The site of PS migration was within the pancreatic head (n=3), body (n=3) and tail (n=6).

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