with the main referral indication being Crohn's disease (in 46%) and GI bleeding in only 30% of cases. The overall rate of positive findings is lower than in the literature at 37% and may be due to the different referral indications as well as the small number of procedures performed so far.

Competing interests None declared.

#### REFERENCE

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PM0-209

# INCIDENCE OF STROKE FOLLOWING ENDOSCOPY IN A DISTRICT GENERAL HOSPITAL

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**Introduction** There has been a sustained increase in demand for gastrointestinal (GI) endoscopy. 1.4%—1.6% of the population undergo upper GI endoscopy per annum, 0.8 % flexible sigmoidoscopy (FS) and 0.6% colonoscopy. Complications occur due to the risk of the procedure or sedation. With the advent of the bowel cancer screening programme there has been increasing scrutiny of the safety of endoscopy and strict quality assurance. Both transient ischaemic attacks (TIAs) and strokes (cerebrovascular accidents (CVAs)) are recognised to occur both during and following endoscopic procedures, 12 however data regarding prevalence are lacking. Our objective was to establish the frequency of stroke after endoscopy in our hospital.

**Methods** We performed a retrospective audit of stroke occurrence after endoscopy. Hospital episode statistics were cross referenced with endoscopy reporting system from November 2009 to November 2011. Patients admitted with a stroke within 28 days of an endoscopic procedure (OGD, colonoscopy or FS) were identified. The notes were then examined to ascertain further information about demographics, procedure type, comorbidities, complications, haemodynamic changes, time period between procedure and symptoms, length of stay and survival.

**Results** 8790 procedures were performed: colonoscopy 1953, OGD 4084, FS 2753. Seven strokes were identified; 5 OGD, 1 FS and 1 colonoscopy. 6 of 7 (86%) of the strokes occurred within 10 days, 4 (57%) within 4 days of procedure. Four patients died. Five strokes were cerebral infarcts, two intracerebral haemorrhages. There were no cardiovascular changes or hypoxia during any procedures. 86% of the patients were aged over 75 years. Data from 2 UK audits of OGD and colonoscopy have found the rate of stroke to be 0.04%. Our rates of stroke following endoscopy are similar for colonoscopy at 0.05% but are 3 times higher for OGD at 0.12%. This suggests post endoscopy stroke is a more common occurrence than is previously documented. Although the relatively small numbers make bias likely, an alternative reason could be the under reporting of strokes occurring in the 28 days following endoscopy.

**Conclusion** Endoscopy is a safe procedure but it does have risks, we are performing more procedures and have an aging population. Stroke is a serious event with high mortality and long hospital stay. Quality assurance of endoscopy is an important factor in all procedures and our data would suggest that stroke should be specifically looked for following endoscopy. We need to consider if there is any alternative ways of monitoring patients to be able to predict those who are at risk of stroke following endoscopy.

Competing interests None declared.

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PM0-210

# DOUBLE BALLOON ENTEROSCOPY: HOW USEFUL IS IT TO CONFIRM CROHN'S DISEASE?

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**Introduction** Double Balloon Enteroscopy (DBE) is widely used in clinical practice worldwide. A DBE service at South Tyneside District Hospital was commenced in January 2010 to complement the existing capsule endoscopy (CE) service. We present the results of an audit of prior investigation before DBE.

**Methods** Clinical records were examined for patients referred for DBE with a diagnosis of suspected Crohn's disease. Information was gathered regarding: place of referral, previous imaging and endoscopy, findings and histology.

**Results** 28/37 (77%) of referrals were from outside our hospital. 15/ 37 referred for investigation of Crohn's disease, 75% of these were from outside our hospital. Seven patients with known Crohn's were referred for investigation of recurrent symptoms or for possible stricturing disease. Eight patients were referred with possible Crohn's based on clinical symptoms and signs. All patients had been previously investigated with multiple endoscopic or imaging modalities. Most common method of prior imaging for patients being investigated for Crohn's disease was Barium follow through (BaFT) 42%, followed by CE 33%, CT 12.5%, MRE 12.5%. 87% had a colonoscopy prior to referral. 11/15 had abnormal imaging, 5 (33.3%) having inflammatory changes seen on CE. Of these histology was taken in three and found: Crohn's (1), non-specific inflammation (1), normal (1), 3/5 cases were normal at DBE, 4/15 had entirely normal previous investigations. Of the eight patients with suspected Crohn's, two patients with abnormal radiology had DBE findings consistent with Crohn's. Of the three patients with SB ulceration on CE only one had an abnormal DBE and histology obtained was inconclusive. See Abstract PMO-210 table 1.

### Abstract PMO-210 Table 1

| Abnormal           | Normal             | Pathology                | <u> </u>      |                   |              |
|--------------------|--------------------|--------------------------|---------------|-------------------|--------------|
| imaging modalities | imaging modalities | suggested by imaging/VCE | Symptoms only | Result of DBE     | Histology    |
| VCE                | BaFT               | SB inflammation          | No            | Normal            | None         |
| VCE                | BaFT               | SB ulceration            | No            | Normal            | None         |
| Nil                | CE, BaFT           | Normal                   | Yes           | Normal            | Normal       |
| Nil                | CE, BaFT           | Normal                   | Yes           | Normal            | Normal       |
| Nil                | CT, CE BaFT        | Normal                   | Yes           | Normal            | Normal       |
| CT                 | Nil                | SB ulceration/thickening | No            | SB ulceration     | Inconclusive |
| MRE                | Nil                | SB thickening            | No            | Crohn's stricture | Crohn's      |
| CE                 | MRE                | SB ulcers                | No            | SB ulceration     | Inconclusive |

Gut July 2012 Vol 61 Suppl 2

Conclusion A large proportion of our referrals are to investigate Crohn's disease. Most have had multiple endoscopic and imaging modalities prior to referral. DBE is more likely to have positive findings when associated with abnormal imaging rather than abnormal VCE findings. Only those with abnormalities on imaging other than VCE were confirmed to have Crohn's disease; it may be that subtle inflammatory changes on VCE are over reported or that findings were beyond the reach of DBE. Our figures although small would suggest that in those with normal radiological imaging there is little improvement in diagnostic yield with DBE.

Competing interests None declared.

## PMO-211 PROPOFOL SEDATION FOR COLONOSCOPY: A SINGLE **CENTRE'S EXPERIENCE**

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Introduction GI endoscopy has been widely practiced for nearly 40 years. Techniques and sedation regimes have advanced together with an ever increasing complexity of therapeutic possibilities. Despite improved colonoscopic technique there remain a small number of patients who cannot tolerate colonoscopy. We introduced propofol endoscopy lists for difficult patients and complex therapeutic work. The lists are run by an anaesthetist and aim to ensure that the most technically challenging patients are comfortable, relaxed and compliant during the procedure. We review the success and complications of colonoscopy under propofol in our centre.

Methods Review of the last 100 consecutive colonoscopies performed under propofol at Leicester General Hospital. Data were analysed for demographics, indications, diagnoses, propofol dose, reason for the use of propofol and complications. Polyp detection figures were compared to JAG standards and we assessed completion rates in those who had had a failed procedure under conscious sedation previously.

Results 100 procedures were analysed and the patients' age ranged from 20 to 84 years with 70% female and 30% male. Mean propofol dose was 328 mg. 66 patients had had a previous colonoscopy of which 50% had been failed. In the other 50% a variety of reasons were given for propofol use. Of the 34 patients who had not undergone previous colonoscopy the reason for using propofol was only clear in 9. Polyps were detected in 29% of procedures and 89% were completed successfully. 85% of procedures in those patients who had previously failed colonoscopy under sedation were successful. Poor bowel prep prevented completion in three cases, and therefore if these are excluded 93% of colonoscopies previously failed under conscious sedation were successful with propofol. One procedure that had been successful, but difficult, using conscious sedation was unsuccessful using propofol. This may relate to difficulties turning anaesthetised patients. One patient died within 30 day of their procedure. They had extensive ischaemic colitis and significant cardiac comorbidities.

**Conclusion** There has been a sustained demand for propofol sedation within UHL, and it appears to be well-tolerated and safe in appropriately selected patients. High risk patients should be identified and directed to more appropriate diagnostic modalities. It is important to remember that propofol is not a panacea, and we describe a procedure that had been "tricky" using conscious sedation becoming impossible when performed under propofol. Propofol has a role to play in complex therapeutic work and in those who cannot otherwise tolerate the procedure due to pain. Propofol lists are popular with patients, and as complex therapeutic endoscopy expands it is likely that all hospitals will need a similar service, but an appropriately negotiated tariff is necessary to take account of increased

Competing interests None declared.

# PMO-212 PATIENTS WITH POSITIVE FAECAL OCCULT BLOOD TEST (FOBT) FOLLOWING PREVIOUS LOW RISK COLONOSCOPY IN THE BOWEL CANCER SCREENING PROGRAMME: SHOULD CURRENT APPROACH BE CHANGED?

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Introduction In the UK FOBt Bowel Cancer Screening Programme (BCSP), patients between 60 and 75 are invited to submit stool specimens 2 yearly. Those who have either two weakly positive (+ve) or one abnormal FOBt are recommended to undergo colonoscopy. This recommendation stands, even if they have had a previous colonoscopy within the BCSP, regardless of the findings or time frame. In theory therefore a patient may be recommended colonoscopy every 2 years if they have any persisting non-neoplastic lesions that cause bleeding. BSG guidance however recommends surveillance colonoscopy in 5 years (or not at all) for patients with low risk adenoma. All endoscopists in BCSP have been assessed and deemed competent colonoscopists. Also all procedures are carefully monitored by specialist practitioners. Thus this is the most quality assured setting for colonoscopy practice in the health service. We aimed (a) To determine if there were patients who returned to for 2nd BCSP colonoscopy in under 5 years, despite previous colonoscopy being classed as low risk or non-neoplastic. (b) To determine if 2nd colonoscopy gave prognostically significant result.

Methods The BCSP database was used to identify cases with 1st colonoscopy reported as normal, low risk adenomas or "abnormal but no adenoma". Any of these who had a 2nd colonoscopy within the BCSP for +ve FOBt were noted and their reports obtained to get the findings of both procedures. The study period was April 2007 to October 2011.

Results 40 patients, deemed low risk at 1st BCSP colonoscopy returned new positive FOBt kits in following screening round. Of these two declined 2nd colonoscopy when contacted (initial colonoscopy findings were one Crohns, one diverticulosis). In three cases, interval between colonoscopies was 4 years, all the rest being 2 years. All colonoscopy findings are in Abstract PMO-212 table 1. All adenomas were 3 mm or less.

# Abstract PMO-212 Table 1

| Initial colonoscopy principal finding (number) | 2 <sup>nd</sup> colonoscopy principal finding <i>(number)</i> |  |  |
|--|---|--|--|
| Normal (11)                                    | Normal (7), 1 or 2 small adenomas (4)                         |  |  |
| 1 or 2 small adenomas (13)                     | 1 or 2 small adenomas (6), normal (5)                         |  |  |
| Colitis (1) or Crohns (3)                      | Colitis (1), Crohns (2; 1 declined)                           |  |  |
| Diverticular disease (9)                       | Diverticular disease (7), normal (1)                          |  |  |
| Radiation proctitis                            | Radiation proctitis   |  |  |
| Angiodysplasia                                 | Normal  |  |  |

**Conclusion** A small number of patients will have positive FOBt tests despite a "low risk" colonoscopy in BCSP for neoplasia within previous 2 years. In our patient group, a 2nd colonoscopy in this period showed no new prognostically significant findings. Our data suggests that there is no need to deviate from the BSG recommendation and perform repeat procedures for "low risk" patients in <5 years in the BCSP.

Competing interests None declared.

# REFERENCE

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A160 Gut July 2012 Vol 61 Suppl 2