PTU-9 POST-COLONOSCOPY COLORECTAL CANCER: A 5-YEAR ANALYSIS AND MEASURES IMPLEMENTED AT A DISTRICT GENERAL HOSPITAL

Nick Constantinou*, Jodie Chalmers, Thomas Marjot, Sue Cullen, Emily Johns, Sujata Biswas. *Buckinghamshire Healthcare NHS Trust, UK*

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Introduction Post-colonoscopy colorectal cancer (PCCRC) is the diagnosis of cancer up to 3 years after a colonoscopy at which no cancer was found. It is a measure of endoscopy quality assurance and PCCRC rates are expected as part of both JAG assessment and the Getting It Right First Time programme. The WEO (World Endoscopy Organisation) has published guidelines for calculation and categorisation of PCCRCs. We analysed local PCCRC rates and established measures to improve these over time.

Methods Retrospective analysis of colonoscopies performed from 1st January 2014 to 31st December 31st 2016 was done. The endoscopy and pathology databases and lower GI cancer MDT lists were utilised. PCCRCs were determined up to 3 years after initial investigation, and rates calculated using WEO guidelines.

Results 11,268 colonoscopies were performed between 2014 and 2016. Annual PCCRC rates reduced incrementally each year, from 10.1% in 2014, to 4.5% in 2015, to 3.5% in 2016 (Table 1). The majority of cases were due to a missed lesion at a prior examination which was thought to be adequate. In cases of uncertainty (n=7) a Root Cause Analysis (RCA) was performed.

All PCCRC cases were fed back to the responsible endoscopist and audit data were presented at endoscopy user group meetings. An incident form was completed within 48 hours of reporting, and if the case was deemed to be potentially preventable, a Serious Incident report was filed. These reports and RCAs were discussed at Clinical Governance meetings. Patients were informed using a standard Duty of Candour letter, and invited to an individual meeting to discuss lessons learnt and actions taken.

Abstract PTU-9 Table 1 PCCRC rates and categorisation from 2014 to 2016

	2014	2015	2016
No. colonoscopies	3298	3556	4414
No. patients with colonoscopy and CRC	149	132	141
No. detected cancers (<6m after colonoscopy)	132	126	136
No. PCCRC (6-36m after colonoscopy)	15	6	5
PCCRC 3 yr rate	10.1%	4.5%	3.5%
Categorisation of PCCRC			
Possible missed lesion, prior examination adequate	27% (4/15)	33% (2/6)	60% (3/5)
Possible missed lesion, prior examination inadequate	13% (2/15)	0% (0/6)	20% (1/5)
Detected lesion, not resected	7% (1/15)	33% (2/6)	0% (0/5)
Likely incomplete resection	20% (3/15)	17% (1/6)	0% (0/5)
Uncertainty requiring RCA	33% (5/15)	17% (1/6)	20% (1/5)

Conclusions This retrospective audit demonstrates that our rates are consistent with the national average, and that incremental improvements are possible. The gold standard 3-year PCCRC rate of 2% suggested in a recent paper¹ should be achievable with the correct measures. We recommend regular audits, standardised documents to report incidents and to inform patients, and evaluation at departmental meetings.

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PTU-10 BOTULINUM TOXIN INJECTION IN THE MANAGEMENT OF TYPE II SPHINCTER OF ODDI DYSFUNCTION

Shyam Menon, Ray Mathew. *The Royal Wolverhampton Nhs Trust, Wolverhampton, UK*

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Introduction Type II sphincter of Oddi dysfunction (SOD) or functional biliary sphincter disorder (FBSD) is treated by endoscopic biliary sphincterotomy. However, a proportion of patients continue to experience attacks of severe pancreaticobiliary pain necessitating hospital admissions for management of acute pain. Intraspincteric Botulinum toxin (Botox) injection to the sphincter of Oddi has been demonstrated previously to alleviate pain in FBSD and to identify patients who may respond to an endoscopic biliary sphincterotomy (ES). Botox has been demonstrated to be useful in managing pain in patients with Type III SOD. We have been using Botox in symptomatic patients with FBSD post ES and report our experience with this strategy.

Methods A retrospective review of case notes over a 5-year period (2014-2019) was performed. All patients underwent extensive investigations including blood tests, gastroscopy, trans-abdominal ultrasonography, cross-sectional imaging with MRCP/CT and EUS, and Morphine TBIDA scans. The diagnosis of Type II SOD or FBSD was made in post cholecystectomy patients with abdominal pain identical to their pre-cholecystectomy pain and either a dilated bile duct or abnormal liver function tests (ALT or ALP x 1.5 times upper limit of normal) in line with the modified Milwaukee criteria and/or a positive Morphine TBIDA scan. All patients underwent ES and were followed up in an outpatient setting. Patients who had ongoing symptoms of severe pancreaticobiliary pain following ES underwent Botox injection around the ampullary area. Further Botox injections were applied depending on duration of response. The efficacy of ampullary botulinum toxin injection on pain was recorded at post-procedure outpatient review using a nominal pain scale. Opioid analgesia and frequency of hospital admissions were noted, in addition to neuromodulatory medication initiated at the time of endoscopy or at subsequent outpatient review.

Results 15 female patients with FBSD who underwent ES and who had ongoing pancreaticobiliary pain underwent a mean of 3 (1-7) Botox injections over a mean period of 15 (7-4) months. The median dose of botulinum toxin used was 200 (100-600) units. 14/15 (93%) patients reported a significant improvement in pain on post procedure review with 13/15 (87%) of patients managing to discontinue opioid medication post procedure. 9/14 (64%) had a complete response to pain and 5/14 (36%) had a partial response. 1 patient had no response to Botox injection and continued on opioid therapy.

14/15 (93%) continue with or were initiated on neuromodulatory medication (Amitriptyline/Duloxetine/Pregabalin/Mirtazapine). 12/15 (80%) did not need any further hospital admissions for symptom management.

Conclusions Ampullary Botox injection is a useful management strategy in managing refractory pancreaticobiliary pain in patients with FBSD post ES.

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PTU-11

ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY IN CHRONIC PANCREATITIS; EXPERIENCE IN A TERTIARY REFERRAL CENTRE

Wafaa Ahmed*, John Devlin, David Reffitt, Phillip Harrison, Deepak Joshi. *Kings College Hospital NHS Trust, London, UK*

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Introduction Chronic pancreatitis (CP) is a fibroinflammatory condition of the pancreas leading to pancreatic fibrosis, duct distortion and calcification with progressive pain, exocrine and endocrine dysfunction. We sought to assess the effects of endoscopic intervention via Endoscopic Retrograde Cholangiopancreatography (ERCP) on pancreatic duct (PD) remodelling and pain.

Methods Consecutive patients with CP who underwent ERCP with pancreatic intervention at a tertiary centre over a ten-year period were retrospectively analysed. Recorded variables included patient demographics, procedural characteristics and follow-up data. Fishers test was used to calculate statistical significance.

Results 51 patients (36 male) with PD strictures and intraductal calcification were identified. The median age was 50 (range 20 – 82 years old). 131 ERCPs were undertaken (one procedure in 23, two- three in 19, four- five in 3, six and above in 6). Alcohol was the commonest aetiology in 39.22% (n=20), followed by idiopathic 25.5% (n=13) and obstructive stone disease 21.57% (n=11). 43.14% (n=22) were smokers and 41.18% (n=21) were consuming alcohol.

Technical success was achieved in 84.31% (n=43). 72.09% (n= 31) had a main PD stricture. 62.79% (n= 27) had main PD stones of which 33.33% (n=9) were larger than 5mm. 88.37% (n=38) underwent pancreatic endotherapy. Dilatation of pancreatic strictures was carried out in 44.74% (n=17), with 94.74% (n=36) undergoing pancreatic stenting. Sequential pancreatic stenting was utilised in 66.16% (n=24). In total there were 81 stents inserted over the study period. Plastic stents were the most commonly used at 62.96% (n=51), followed by Niti-S™ BUMPY™ Pancreatic Stent 30.86% (n=25) and Fully Covered Self Expanding Metal stents (FC-SEMS) 4.94% (n=4) and one ARCHIMEDES Biodegradable pancreatic stent. The median duration of sequential stenting was 17 months (range 1- 65 months).

42.11% (n=16) had resolution of their strictures with intervention and 57.89% (n=22) had improvement in pain. Patients with intraductal stones <5mm were more likely to have improvement in pain with endoscopic therapy than those

>5mm (15 vs 2, P= 0.0001). Patients having sequential stenting were more likely to have improvement in their strictures (14 vs 2, p= 0.0157). The same effect on pain was not apparent with sequential stenting (17 vs 7, p= 0.2979). There were 2 episodes of pancreatitis and 6 episodes of stent migration.

Conclusions Pancreatic endotherapy is more effective in patients with intraductal stones less than 5mm. Sequential stenting seems to have a beneficial effect on pancreatic strictures which may impact disease progression.

PTU-12

SMALL POLYPS AT COLONOSCOPY AND THE NICE CLASSIFICATION: LIKELY CAUSES OF OPTICAL DIAGNOSIS ERROR

Ahmir Ahmad*, Ana Wilson, Angad Dhillon, Siwan Thomas-Gibson, Noriko Suzuki, Adam Humphries, Adam Haycock, Kevin Monahan, Margaret Vance, Brian Saunders. *Wolfson Unit for Endoscopy, Imperial College London, London, UK*

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Introduction There is increasing interest in optical diagnosis (OD) for small colonic polyps with a 'resect and discard' strategy. During OD the endoscopist assigns the polyp diagnosis as high or low confidence using the NICE or equivalent classification. Our aim is to assess factors that result in an incorrect OD where a high confidence optical diagnosis is made by an experienced endoscopist.

Methods In the early phase of a prospective feasibility study of optical diagnosis (DISCARD3), eight bowel cancer screening colonoscopists optically diagnosed 639 diminutive polyps during Feb-Nov 2020. Each polyp diagnosis was evaluated by the colonoscopist as high or low confidence using the NICE criteria. All retrieved polyps were sent for histopathology.

In 112 polyps the high confidence optical diagnosis did not match the final histology result. A root cause analysis was performed as part of the ongoing training and implementation of optical diagnosis. Each of these polyp photos were assessed by a blinded endoscopist who scored photo quality with 1 point for each of the following criteria (score range 0-3): clean surface; complete view; and correct focal distance. A score of 3 was considered adequate to apply the NICE criteria.

In addition, the likely cause of the optical diagnosis error was categorised as:

1. NICE mismatch - NICE criteria could not be fully applied to the polyp (eg mixture of NICE type 1 and type 2 features).

- NICE not applied – NICE criteria could be applied but was done incorrectly.
- Inadequate photo for NICE – where photo quality was inadequate for NICE criteria to be applied.
- Specimen processing error – where there is high confidence that the optical diagnosis was correct with suspected specimen processing/retrieval error.

Results Of 112 polyps, 91% (102/112) had clean surface, 60% (67/112) had complete view, and 27% (30/112) had correct focal distance. The photo quality scores were inadequate in 93/112 cases (score 0: 5%, 6/112; 1: 29%, 32/112; or 2: 49%, 55/112) and adequate in 19/112 cases (score 3: 17%, 19/112).

The assumed cause of the optical diagnosis error was NICE mismatch in 31/112 (27.7%) cases, NICE not applied in 19/