

Autumn Meeting Ulster Society of Gastroenterology, October 2012

Hilton Hotel, Belfast



UTILITY OF ISOTOPE LABELLED WHITE CELL SCANS IN INFLAMMATORY BOWEL DISEASE

Authors: Spence AD, McAnearney S, Murphy SJ

Institution: Department of Medicine, Daisy Hill Hospital, Newry

Introduction: Inflammatory bowel disease (IBD) requires multiple investigations to assist in disease assessment. Isotope labelled white cell scanning [ILWCS] is sometimes used to assess these patients. ILWCS can be used in the assessment of IBD, although they have no role in the primary diagnosis of IBD. Their utility in terms of influencing management decisions in IBD remains uncertain.

Methods: We performed a retrospective study of patients undergoing ILWCS for IBD from 2009 to 2011 at Southern HSC Trust. Detailed chart review was performed to extract relevant data.

Results: 31 ILWCS were performed during the study period. Twenty-three scans were performed for IBD-related reasons and were studied in detail. There were 5 men, 18 women, mean age 41 years (range 15 to 91). Only 7/23 (30%) scans were requested for disease assessment, the remainder (70%) were in primary diagnosis. For disease assessment, numbers of patients with ILWCS findings of active and no active IBD were 4 and 3, respectively. For primary diagnosis, numbers of patients with ILWCS findings of active and no active IBD were 5 and 11, respectively. Average follow-up post scan was 25 months (range 16-35 months). No patients' treatment regime was altered post-ILWCS, regardless of indication for scan or scan result. The direct cost of scans was estimated at £13,800.

Conclusions: 70% of ILWCS were requested inappropriately. No patient had any discernible treatment change following the scan. A policy change to withdraw ILWCS for IBD assessment would have quantifiable direct cost savings as well as unquantifiable patient benefits.

COST EFFECTIVENESS OF ENDOSCOPIC SURVEILLANCE OF NON-DYSPLASTIC BARRETT'S OESOPHAGUS

Authors: Bhat SK¹, Pitt M², Murray LJ³, Somerville M⁴, Coleman HG³, McManus DT¹, Johnston BT¹

Institutions: ¹Belfast Health and Social Care Trust ²Peninsula Medical School, Exeter ³Centre for Public Health, Queen's University Belfast

NHS Highland, Aberdeen

Background: Endoscopic surveillance of non-dysplastic Barrett's oesophagus (NDBO) is widely practised, however the cost effectiveness of surveillance of NDBO is uncertain. Our aim was to examine the cost effectiveness of surveillance in NDBO, and determine the parameters that most influence the cost effectiveness of surveillance.

Methods: A Markov model was developed to reflect the natural history of Barrett's oesophagus progression and treatment, including endoscopic therapy for neoplasia. In the base case 1,000 55 year old men were modelled over a 20 year time horizon. Model parameters were obtained from a literature review. Costs within the model reflect United Kingdom National Health Service costs. Endoscopic surveillance every 2 years for NDBO was compared to no surveillance. Sensitivity analysis was conducted to examine the most influential parameters within the model.

Results: Surveillance for NDBO was shown to do more harm than good with fewer quality adjusted life years (QALYs) than no surveillance and at an additional cost of £4.46 million. Sensitivity analysis revealed that the most influential parameters were the cost of endoscopy and the rate at which OAC becomes symptomatic once it has developed. There was no scenario within the sensitivity analysis where surveillance was cost effective.

Conclusion: This study suggests that despite advances in the endoscopic treatment of early Barrett's neoplasia, endoscopic surveillance of NDBO is unlikely to be cost effective. Better methods of stratifying NDBO patients at greatest risk of malignant progression are required to enable targeted surveillance of patients in whom surveillance will be most cost effective.

ENDOSCOPIC AMPULLECTOMY: A LESS-INVASIVE ALTERNATIVE TO SURGERY FOR AMPULLARY TUMOURS

Authors: Eccles JK, Tham TCK

Institution: Division of Gastroenterology, Ulster Hospital, Dundonald, Belfast

Introduction: Ampulla of Vater adenomas have potential for malignant transformation, however if detected and resected early, the prognosis is good, with up to 50% five-year survival rates for adenocarcinoma within the literature. Although historically treated surgically, endoscopic ampullectomy has recently gained greater acceptance as an alternative management for selected patients with limited tumour invasion, with reduced morbidity and mortality. We describe our experience of endoscopic ampullectomy in such patients.

Method: A review was undertaken of patients diagnosed with an ampullary tumour between April 2011 and August 2012 at the Ulster Hospital, and information was obtained from their radiology, endoscopy and histopathology reports.

Results: Four patients with histopathologically-confirmed adenomas underwent endoscopic ampullectomy; mean age was 65 years (range 50 – 72 years), all were male, and ASA physical status classification ranged from 1 to 3. In all four cases, the tumour was successfully resected using snare polypectomy and followed by ERCP with stenting of the pancreatic and bile ducts. One patient developed minor post-procedural bleeding, which was managed conservatively. At follow-up duodenoscopy within 3 months, one of the four patients had no evidence of recurrence; one patient underwent further endoscopic resection at 3 months and had no evidence of recurrence within 12 months. In one case, histopathological analysis of the resected specimen confirmed adenocarcinoma with extension to the base of excision, with subsequent Whipple's operation. One patient is awaiting follow-up endoscopy.

Conclusions: Endoscopic ampullectomy is a safe and effective treatment option for selected ampullary adenomas.

DOES MR ENTEROGRAPHY (MRE) INFLUENCE MANAGEMENT OF SUSPECTED OR KNOWN CROHNS DISEASE?

Authors: Manikpure G, Hutchinson C, Ball P, Tham TCK

Institutions: Divisions of Gastroenterology and Radiology, Ulster Hospital, Dundonald, Belfast

Introduction: MRE is increasingly used as the first line imaging modality for patients with suspected or known small bowel Crohns disease. It's free of radiation, good at delineating anatomy and complications. However, there is no data as to whether or not MRE can change management. We aimed to evaluate the impact of MRE in the diagnosis and subsequent impact on clinical management in patients with suspected or known small bowel Crohns disease

Methods: Retrospective analysis of all MRE scans from May 2010 – June 2012 in Ulster hospital. Impact of positive and negative scan results were analysed to see if it influenced decision making. If the scan was suggestive of Crohns disease then we sought to find if treatment changed. A normal MRE scan was considered influential if it facilitated discharge of the patient.

Results: 39 patients (20 male, mean age 32) underwent MRE for evaluation for suspected (n = 15) or known (n = 24) Crohns disease. 24 scans were requested from medical outpatients, 9 from surgical outpatients and 6 were inpatient requests. 18 patients were found to have evidence of small bowel Crohns and needed change of treatment which included the use of biologics or immunomodulators (infliximab, azathioprine and methotrexate), steroids, 5 ASA compounds and surgery. 14 patient had normal MRE scan and were discharged. An alternate diagnosis was reached in 2 patients (ulcerative colitis and gallstones). 5 patients needed further clinical follow up after a normal MRE scan.

Conclusions: MRE had a significant impact in the management of patients with suspected small bowel Crohns disease in 87% of patients (34/39). MRE should be more widely available for suspected small bowel Crohns disease.

FIT VS FOB IN NORTHERN IRELAND: ANALYSIS OF THE BOWEL CANCER SCREENING PROGRAMME

Authors: Boyle A, Ings G, Ryan M, Allen P, Loughrey, Owen T

Institutions: Causeway Hospital

Bowel cancer screening in Northern Ireland has taken place since April 2010, with the entire province coming online in January 2012. Currently all adults aged 60 – 71 are invited to take part, and asked to provide stool samples for faecal occult blood (FOB) testing. If strongly positive (5-6 wells positive) subjects are invited to colonoscopy; weakly positive results are asked to provide samples for faecal immunochemical testing (FIT). If patients are FIT positive they are invited for a colonoscopy.

Evidence has shown that FIT testing is more sensitive than FOB for detecting cancer and has an acceptable specificity profile^{1,2}. This has not yet been proven in our population.

To date there have been 170,492 patients invited to participate in the bowel cancer screening programme, with 80,975 responses (47.5%), which is a lower uptake than Scotland (53 – 55.3%) and England (53.6%)^{3,4}.

Of the 145 bowel cancer diagnoses detected via the screening programme, 105 (72%) were FOB equivocal and FIT positive. Only 37 were strongly positive on FOB testing, with 3 diagnoses coming from FIT testing following failed completion of FOB testing.

At present we do not have all the relevant data to establish the sensitivity and specificity of these screening tests in our population. However FIT is detecting many more cancer diagnoses than FOB, and has been proven to have an improved return rate. This suggests there is some merit in following Scotland to a FIT-first screening system.

1. Park D et al. Comparison of a guaiac-based and quantitative immunochemical fecal occult blood testing in a population at average risk undergoing colorectal cancer

- screening. *American Journal of Gastroenterology*. 2010 September; 105(9): p. 2017-25.
2. Levi Z et al. A higher detection rate for colorectal cancer and advanced adenomatous polyp for screening with immunochemical fecal occult blood test than guaiac fecal occult blood test, despite lower compliance rate. A prospective, controlled, feasibility study. *International Journal of Cancer*. 2011 May; 128(10): p. 2415-24.
 3. von Wagner C et al. Inequalities in participation in an organized national colorectal cancer screening programme: results from the first 2.6 million invitations in England. *International Journal of Epidemiology*. 2011; 40(3): p. 712-8.
 4. Steele RJC et al. Results from the first three rounds of the Scottish demonstration pilot of FOBT screening for colorectal cancer. *Gut*. 2009; 58: p. 530-5.
 5. Vart G, Banzi R, Minozzi S. Comparing participation rates between immunochemical and guaiac faecal occult blood tests: A systematic review and meta-analysis. *Preventive Medicine*. 2012; 55(2): p. 87-92.