Introduction Early adenoma detection is shown to reduce mortality from colorectal cancers. Advances in endoscopy are aimed at improving adenoma detection. Contrast enhancement using dye spray is reported to improve the detection of subtle mucosal changes. We aim to perform a meta-analysis to look at the effect of chromoendoscopy on adenoma detection in the colon.

Methods Various electronic databases were searched for articles reporting on detection of polyps during colonoscopy comparing standard white light endoscopy and chromoendoscopy. The pooled mean differences in total number of adenomatous polyps detected, number of right and left sided polyps, advanced and flat adenomas, total number of polyps and number of <5 mm polyps detected was calculated. A fixed effects model was used unless there was significant heterogeneity. Publication bias was assessed using funnel plots and Egger’s test and heterogeneity was assessed using Cochrane’s Q and the I² test.

Results 714 number of patients from 14 studies were included in the analysis. 7 studies were randomised controlled trials and 7 had a significant heterogeneity of the pooled analysis. The trim and fill method which did not change the statistical significance of the funnel plot with fewer number of smaller negative studies included. Sensitivity analysis for publication bias using the trim and fill method which did not change the statistical significance of the pooled analysis.

Abstract PWE-072 Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pooled mean difference</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenoma detection</td>
<td>0.139 (95% CI 0.082 to 0.195)</td>
<td>0.0001</td>
</tr>
<tr>
<td>Right sided adenomas</td>
<td>0.137 (95% CI 0.048 to 0.226)</td>
<td>0.003</td>
</tr>
<tr>
<td>Left sided adenomas</td>
<td>0.177 (95% CI 0.007 to 0.221)</td>
<td>0.036</td>
</tr>
<tr>
<td>Advanced adenomas</td>
<td>0.105 (95% CI 0.017 to 0.194)</td>
<td>0.019</td>
</tr>
<tr>
<td>Flat adenomas</td>
<td>0.154 (95% CI –0.084 to 0.393)</td>
<td>0.205</td>
</tr>
<tr>
<td>Hyperplastic</td>
<td>0.364 (95% CI 0.261 to 0.447)</td>
<td>0.001</td>
</tr>
<tr>
<td>&lt;5mm</td>
<td>0.271 (95% CI 0.172 to 0.369)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Conclusion Conclusions: Chromoendoscopy improves detection rate of adenomatous polyps compared to conventional white light endoscopy. This seems greater for advanced as well as right sided adenomas, but significantly higher number of hyperplastic and small (< 5 mm) polyps were detected by chromoendoscopy but no differences were noted for detection of flat adenomas. A random effects model was used because there was significant heterogeneity between the studies. There was some publication bias noted on the funnel plot with fewer number of smaller negative studies included. Sensitivity analysis for publication bias using the trim and fill method which did not change the statistical significance of the pooled analysis.

Disclosure of Interest None Declared.

Inflammatory bowel disease

PWE-073 THE MULTIDIMENSIONAL NATURE OF IBD FATIGUE: A SYSTEMATIC REVIEW AND META- ANALYSIS

doi:10.1136/gutjnl-2013-304907.362

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Introduction Biologics are increasingly used in the management of Crohn’s disease (CD). NICE guidelines advise reassessing CD patients after 12 months of treatment with infliximab and discontinuing therapy for patients in stable clinical remission. Evidence suggests that sustained remission may be achieved in up to 50–60% of these patients on withdrawal of treatment. However, it is recognised that decisions regarding continuing treatment must be individualised and take into account previous disease behaviour. We sought to determine how often in clinical practice maintenance infliximab was discontinued due to clinical remission.

Methods All patients treated with infliximab for CD between September 2006 and December 2012 were identified from our inflammatory bowel disease (IBD) database. Dates of initiation and termination of treatment were recorded along with the reason for discontinuation. Patients continuing on infliximab were analysed in more detail. Patient demographics, past medical history, Montreal classification, baseline investigations, Harvey-Bradshaw index (HBI) and faecal calprotectin (FC) levels were recorded.
Results 114 patients were identified. 11 patients transferred care and were excluded. 91/103 (88.3%) received maintenance (>6 weeks) treatment. 47.3% had discontinued treatment while 52.7% remained on treatment. The median length of treatment was 73 (range 8–329) weeks. Only 25.3% (10/45) discontinued infliximab due to clinical remission with 34.9% (15/43) stopping because of complications and 39.5% (17/45) due to loss of response, surgery or death. The median course of treatment for those continuing on infliximab was 101 (range 8–329) weeks. 37 patients (21 female, mean age 40 years) were on maintenance infliximab treatment for over 1 year. 73% of these patients were on combined treatment with an immunomodulator and 37.8% (14/37) had required dose escalation or a reduction in dose interval. In patients continuing treatment for over 1 year, the median FC was 184µg/g (range 30–9000) with a median reduction in FC level post-treatment of 416µg/g (range –3000–7086) and a median HBI of 4 (range 0–16). 57.1% could be defined as being in clinical remission with HBI < 5.

Conclusion In our large cohort of CD patients, few patients discontinued infliximab due to clinical remission. In those continuing infliximab for over 1 year the median FC was low, suggesting good control of inflammation, and the majority of patients were in clinical remission as defined by a HBI < 5. These results support the efficacy of infliximab as maintenance therapy in CD but suggest that despite evidence of clinical remission the majority of patients continue therapy.

Disclosure of Interest None Declared.

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**PWE-075**

**ASSOCIATION BETWEEN THIOPURINE USE AND NON-MELANOMA SKIN CANCERS IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE: A META-ANALYSIS**

doi:10.1136/gutjnl-2013-304907.364

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**Introduction** Thiopurines are the mainstay of treatment for patients with inflammatory bowel disease (IBD). Thiopurine therapy increases the risk of non-melanoma skin cancers (NMSC) in solid organ transplant patients. The data on NMSC in patients taking thiouracils for IBD is conflicting.

**Methods** We searched electronic databases (PubMed, OVID, the Cochrane library, EMBASE and CINAHL) for full journal articles reporting on the risk of developing NMSC in patients taking thioureas for IBD and hand searched the reference lists of all retrieved articles. Pooled adjusted hazard ratios and 95% confidence intervals were determined using a random effects model. Publication bias was assessed using Funnel plots or Egger’s test for regression asymmetry.

**Results** Pooled adjusted hazard ratios and 95% confidence intervals

<table>
<thead>
<tr>
<th>All Studies</th>
<th>Pooled Hazard Ratio</th>
<th>95% Confidence Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.275</td>
<td>1.502–3.446</td>
</tr>
<tr>
<td>Follow-up &lt; 3 years</td>
<td>2.869</td>
<td>2.017–4.080</td>
</tr>
<tr>
<td>Follow-up &gt; 6 years</td>
<td>1.876</td>
<td>0.868–4.056</td>
</tr>
<tr>
<td>Population based</td>
<td>1.828</td>
<td>1.196–2.795</td>
</tr>
<tr>
<td>Hospital based</td>
<td>7.217</td>
<td>3.082–16.898</td>
</tr>
</tbody>
</table>

**Conclusion** In this meta-analysis we found a significant increased risk of developing NMSC in patients with IBD on thiopurines compared to the general population. The risk was highest in hospital based and shorter duration studies (Table).

**Disclosure of Interest** None Declared.

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**PWE-076**

**DENDRITIC CELL CHARACTERISTICS IN POUCHITIS**

doi:10.1136/gutjnl-2013-304907.365

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**Introduction** The role of dendritic cells (DC) in inflammatory bowel disease is increasingly recognised for their function in regulating intestinal immune responses. To our knowledge there are no previous studies of DC in pouchitis. We aimed to characterise changes in DC in pouchitis that may underlie the dysregulated immune response to the pouch microbiota.

**Methods** Mucosal biopsy samples were taken from patients with pouchitis (n = 14) and ulcerative colitis patients without pouchitis (n = 10). Lamina propria DC were isolated by collagenase digestion. DC were identified as an HLA DR+, lineage -(CD3-, CD14-, CD16-, CD19-, CD34+) population. DC expression of TLR 2 and 4, CCR9, β7 and CD40 were measured by multicolour flow cytometry. The t-test was used for statistical analysis.

**Results** DC expression of TLR 2 and 4 were both significantly elevated in patients with pouchitis compared with non-pouchitis patients (p = 0.007 and 0.008). In pouchitis patients, DC expression of β7 was increased (p = 0.02) and expression of CCR 9 was decreased (p = 0.02). DC expression of CD40 was increased in patients with pouchitis (p < 0.0001).

**Conclusion** In pouchitis, DC are activated and upregulate expression of microbial recognition receptors. In addition, DC expression of gut homing markers is elevated in pouchitis with a more colonic homing marker profile. Similarly to other IBD, DC are likely to be key in the initiation and perpetuation of the inflammatory response to the dysbiosis of the pouch microbiota.

**Disclosure of Interest** J. Landy Grant/Research Support from: The Broad Foundation, H. Al-Hassi: None Declared, E. Mann: None Declared, S. Peake: None Declared, P. Ciclitira: None Declared, J. Nicholls: None Declared, S. Clark: None Declared, S. Knight: None Declared, A. Hart: None Declared

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**PWE-077**

**ALTERED EPITHELIAL TIGHT JUNCTION EXPRESSION AND ELEVATED IL 6 LEVELS IN POUCHITIS**

doi:10.1136/gutjnl-2013-304907.366

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**Introduction** Intestinal epithelial barrier function limits the interactions between microbial antigens and the mucosal immune system. In IBD, epithelial barrier function is impaired with altered expression of tight junctions. We aimed to assess epithelial tight junction expression and mucosal cytokines in acute and chronic pouchitis and non-inflamed pouches of patients with ulcerative colitis.