It is of patients complete (Type I) patients had as spaced biopsies in the determine metaplasia. Incomplete has been defined as a columnar lined segment of Barrett’s short segment of Barrett’s columnar with Barrett’s disease. This is as a -severe (grade 2-3) were studied by freeze -3cm in length. Specialised columnar epithelium (intestinal metaplasia) confers cancer risk and is uniformly present in association with high grade dysplasia or adenocarcinoma in Barrett’s oesophagus. A short segment of Barrett’s oesophagus (SSB) has recently been defined as a columnar lined segment of distal oesophagus shorter than 3cm with associated intestinal metaplasia. The optimal number of biopsies to detect this abnormality is not known but is likely to be multiple an intestinal metaplasia shows a marked variation in extent and location. The purpose of this study was to determine the diagnostic sensitivity of multiple closely spaced biopsies in patients with suspected SSB. Thirty two patients were detected with probable short segment of columnar lined oesophagus (CLO). Twenty two (69%) patients had symptoms of gastro-oesophageal reflux. Fifteen patients (47%) had macroscopic oesophagitis.

Eight quadratic biopsies were taken from 24 patients of CLO. CLO was correctly identified in 31 patients. These patients had a median of 8 biopsies (range 6-24) taken from CLO. The median length of CLO was 1.5cm (1-3cm). Intestinal metaplasia was identified in 26 patients in 40% of biopsies from CLO. Thirteen patients had both complete (Type I) and incomplete (Type IIa or b), and 13 incomplete (9 Type IIb, 3 Type IIa, 1 Type IIa and b) metaplasia. It is estimated that 6 biopsies (95% confidence limits 5 to 7) are necessary per cm of CLO to be 95% certain of detecting intestinal metaplasia if it is present.

Inflammatory bowel disease F246-F254

**Familial Risk of Inflammatory Bowel Disease**

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Family history studies of patients with inflammatory bowel disease have suggested relatives are at increased risk of developing these disorders. Epidemiological studies can assess the role of genetic factors in disease aetiology and measure the magnitude of the risk. 1254 patients aged 15 to 80 years from an epidemiological register in Leicester were sent a questionnaire about family history. All cases with a positive history were reviewed and confirmed cases included in the study.

The relative risk of developing ulcerative colitis in first degree relatives of European patients with ulcerative colitis was increased by up to 9.6, but the risk of Crohn’s disease was not. The risk of developing Crohn’s disease amongst first degree relatives of patients with Crohn’s disease was increased by up to 30, the risk of ulcerative colitis was 3. The risk amongst relatives of South Asians with Crohn’s disease was not increased but the risk to relatives of patients with ulcerative colitis was 3.

This supports the view that Crohn’s disease and ulcerative colitis are separate conditions arising in people with a genetic predisposition and exposed to an apparent environmental factor.
FEATURES OF 5-ASA containing compounds:

In vitro studies indicate rapid (within 30 min) dissolution of coating at pH > 7.0. In view of the marked pH dependency of 5-ASA (release of 5-ASA is coated and 5-ASA is absorbed at its solubility limit), mechanisms of coating must be considered.

Initial pH was measured in controls and patients using a pH sensitive radiotelemetry capsule and a portable solid state recording system. Results:

Group 1 (n=7) Controls

Acute colitis (n=7)

Proximal small bowel (PSB) 6.6 ± 0.5

Distal small bowel (DSB) 7.4 ± 0.4

Right Colon (RC) 6.7 ± 0.3

Group 2 (n=6) Ulcerative Colitis in remission

Sulphasalazine (n=6) Asacol (n=6)

PSB 5.96 ± 0.13

DSB 6.98 ± 0.14

RC 4.90 ± 0.13

P<0.001

*p value compared to controls (mean pH ± SD)

The results indicate that small intestinal luminal pH profiles in UC are similar to those observed in normal controls. In contrast right sided luminal colonic pH in acute UC and UC in remission is significantly lower than in normal controls. We conclude that for 5-ASA release from Asacol in UC, coating dissolution must occur in the small intestine as right sided luminal colonic pH values were below that required to achieve this. Examination of individual small intestinal pH tracings in UC show that in 5 of 21 (23.8%) a luminal pH of 7.0 or greater was sustained for less than 30 min. Thus the possibility exists that suboptimal release of 5-ASA from Asacol may occur in a small proportion of UC patients.

HISTOLOGICAL FEATURES ASSOCIATED WITH THE RECRUITMENT OF CIRCULATING LEUCOCYTES IN ULCERATIVE COLITIS

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The uptake of intravenously administered 99mTc-HM-PAO labelled granulocytes by the colon in 10 patients with ulcerative colitis was semi-quantified by scintigraphy (TLS), and graded for each colonic segment (CSGs), and assessed histologically according to presence of acute inflammation: polymorphonuclear leucocytes (PMNLs), chronic inflammatory infiltrate in the lamina propria (CILP), eosinophils (EOS), vascular congestion (VC), goblet cell depletion (GCD), chronic inflammatory changes: chronic glandular distortion (CGD), and paneth cell metaplasia (PCM). CSGS correlated most strongly with CILP (r=0.79; p<0.001) and PMNLs (r=0.66; p<0.001) but less with GCD (r=0.48; p<0.001) and EOS (r=0.46; p<0.001), and not with VC. In the absence of acute inflammation there was no correlation between CSGS and GCD. CILP is thus strongly associated with recruitment of circulating leucocytes and may provide the most reliable single histological pointer to leucocyte recruitment and inflammation in ulcerative colitis.
CROHN'S DISEASE: A VASCULAR MODEL OF ANASTOMOTIC RECURRENT

Methods: At laparotomy isolated loops of small intestine were injected, via their feeding artery, with either styrene microspheres (20,000-30,000 microspheres/cm bellow - test loop), or saline (control loop). At 72 hours, following mucosal healing, a second laparotomy was performed. Test and control loops were divided and an end-to-end anastomosis was performed between either test loop and test loop (n=2), test loop and control loop (n=9), or control loop and control loop (n=2). In addition, two animals had an anastomosis (without injection of microspheres, and two had microspheres alone, without anastomosis. Animals were sacrificed two weeks later and the intestine was examined microscopically and macroscopically. A total of 388 tissue blocks were examined with a minimum of 20 blocks/animal. Sections were reviewed in a blinded fashion. Results: No abnormalities were seen in control loops and control anastomoses at two weeks. Macroscopic and microscopic abnormalities at 2 weeks were seen in 10 of the 11 animals, were confined to the test loops, and were most prominent adjacent to the anastomosis. These changes included chronic, discontinuous and transmural inflammation (9/11), ulceration (6/11), and granuloma formation 4/11 cases. The changes became progressively milder further away from the anastomosis. These data confirm that the combination of two self-limiting ischaemic insults can produce a pattern of intestinal injury that is analogous to anastomotic recurrence of Crohn's disease. The study supports a role for ischaemia in the evolution of Crohn's disease.

IMAGING ANAL FISTULA WITH MRI

The majority of anal fistulae are simple and relatively easy to treat. Fistulae are usually considered more difficult when the primary tract crosses the upper part of the external anal sphincter or when the tract is suprasphincteric or extrasphincteric. The other "difficult" fistula is one which occurs despite skilled attention, in which additional internal openings or further secondary tracks may be responsible for the recurrent. Accurate delineation of the fistula anatomy, and especially in relation to the sphincter complex, is crucial to successful management, and techniques employed preoperatively to date (fistulography and anal endosonography) have been disappointing. Indeed, some consider the most accurate tool to be the experienced operator's digit. MRI scanning demonstrates accurately the anatomy of the levator sling and sphincter complex, and the granulation tissue of fistulae tracks is revealed brightly on "STIR" sequences, requiring no contrast enhancement. Twelve patients with fistula-in-ano of varying complexity have been scanned with MRI, and the independent interpretation of the images has been identical in all cases to the findings at surgery (see figure).

A FOLLOW-UP STUDY ON SELECTIVE AFFECTIVE BIASING IN IRRITABLE BOWEL SYNDROME (IBS), J.E. Gomborne, PA. Dewsnup, G.W. Libby, M.G. Farthing, Dept. Gastroenterology, St Bartholomew's Hospital, London, UK.

In a previous study of word recognition memory for emotionally loaded stimuli we found evidence of selective affective biasing in favour of negative material in both IBS and depressed patients. In addition the IBS group showed a unique receptiveness to emotionally negative material evidenced by a markedly elevated false-positive error rate for material of this kind. In depression such negative biases dissipate with clinical improvement. To investigate whether this would also occur in IBS, we repeated the word recognition memory task after an 8 month period (IBS n=23; depression n=20). The task involved memorizing a set of 24 emotionally loaded words (8 neutral, 8 positive, 8 negative) and then later picking the words out from a word list. Anxiety and depression were assessed by the Beck Depression Inventory (BDI) and the Hospital Anxiety and Depression Scale (HAD).

At retest, anxiety and depression had decreased in depressed patients, BDI (15.7±6.5 vs 6.4±4.9; p<0.001) and HAD (27.4±5.7 vs 14.5±8.2; p<0.002) and IBS, BDI (9.0±3.8 vs 6.0±3.4; p<0.03) and HAD (17.1±8.2 vs 14.6±5.9, NS). On the word recognition memory task, the depressed group tended to show a reduction in their previous negative bias (84.0±4.9 vs 66±1.34; NS) which was not apparent in the IBS group (94±1.3 vs 91±0.9; NS) despite the fall in BDI score. Moreover, the significantly elevated false-positive error rate for negative material in the IBS group persisted (47.1±2.6 vs 40.8±1.2) unlike the depressed patients in whom it decreased (21±1.0 vs 3±0.5; p<0.001).

Thus, the previously noted receptiveness to emotionally negative material in clinical IBS is persistent, which supports our previous contention that this may have a central role in the perpetuation of their somatic symptoms.


Indices of IBD activity do not usually include a measure of the patients' subjective emotional and social problems which are important for a comprehensive assessment. Aim of this study was to develop and validate an instrument for assessing the quality of life (QL) specific for patients with Ulcerative Colitis (UC) and Crohn's Disease (CD). We prepared a 29 items questionnaire, which explored 4 aspects: intestinal and systemic symptoms, emotional and social functions. The instrument was tested for reproducibility and responsiveness in healthy subjects and patients. We then studied 72 controls and 90 patients with IBD (50 UC and 40 CD) to determine the item loading. Results: mean total score in controls was 6.0 ± 3.8 SD (maximum 87 points); in patients was: U C D C U C D

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<tr>
<th>Item</th>
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<tr>
<td>14.2±3.8</td>
<td>14.8±8.6</td>
<td>21.4±6.2</td>
<td>28.8±15.3</td>
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<tr>
<td>37.2±11.1</td>
<td>47.0±4.2</td>
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<td>p&lt;0.01, Student's unpaired t-test vs remission;</td>
<td>p&lt;0.005 vs mild activity.</td>
<td>Not only patients with active disease but also those in remission had significantly higher scores for all functions, compared to controls. Scores varied only 7% when stable patients were restented, while significantly fell in those who improved [from 37.6±8.2 to 23.6±5.3, p&lt;0.005]. The score modification, always agreed with the patients' and physician's overall opinion, while it was not always correlated to the biochemical tests results.</td>
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We conclude that: 1. the instrument developed is reliable and easy to use, i.e., it allows a better definition of the patient's health status, identifying areas which may be overlooked but which may need intervention; 2. also patients in clinical remission have a significantly reduced QL; and such instrument might be used in clinical trials in IBD, as a complement to the "biological activity" indexes.