Correspondence

Relationship between disease activity indices and colonoscopic findings in patients with colonic inflammatory bowel diseases

SIR,—Gomes *et al.*¹ found only a poor correlation between the colonoscopic or histologic findings in 50 patients with inflammatory bowel disease, and the indices of disease activity used;^{2–5} they showed that these measures of disease activity did not reflect severity or extent of disease at organ level.

Focusing our attention only on the 28 patients affected by ulcerative colitis, they found no significant correlation between macroscopic or microscopic score and clinical index score, C-reactive protein, white blood cells platelets or albumin concentration, while there was a good correlation between micro and macroscopic score.

In a very similar study (that is currently being published) we used the same clinical scoring system⁵ used by Gomes *et al.*, and the one previously developed by Cooke and Prior,⁶ to evaluate disease severity in 50 patients with ulcerative colitis, from a clinical and biochemical point of view respectively, who underwent a colonoscopy to investigate possible relationships between clinical, biochemical and morphological appearances.

At colonoscopy the colon was divided into seven regions and macroscopic and microscopic scores were developed for grading morphological severity appearance. Using Spearman's rank parametric test for statistical evaluation, we found significant correlation between macroscopic and microscopic appearance, but neither of these were correlated with the biochemical disease activity index, as Gomes *et al.* found; moreover, the clinical evaluation method was correlated statistically with macroscopic ($r=0.38$, $p<0.01$), microscopic aspects ($r=0.31$, $p<0.05$) and with the activity index ($r=0.34$, $p=0.05$), differing from what was observed by Gomes *et al.* A possible explanation of the different findings between Gomes *et al.*'s and our series could be because of the different number of ulcerative colitis patients examined (28 and 50 Gomes *et al.* and in our study respectively). It may also be noted that previous extensive studies supported a correlation between mucosal appearance and some clinical variables—for example, well being, rectal bleeding and stool consistency),⁵ even if no relationship with disease extension can be proposed.⁷

We therefore think that in these patients the indication for colonoscopic examination, except for those periodically established for early detection of neoplastic changes, should be considered only after

a clinical evaluation suggesting a possible disease relapse (why carry out a colonoscopy in patients in well established clinical and biochemical remission?). This approach enables to avoid an indiscriminate repetition of endoscopic and histological evaluations also taking into account the high social and individual cost of such examinations.

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Twenty four hour intragastric acidity analysis for the future

SIR,—I welcome the leading article by Dr Walt (*Gut* 1986; 27: 1–9) and agree with much of it. Unfortunately it contains some misleading conceptions.

The formula relating pH to hydrogen ion activity is incorrect and should read –

$$\text{pH} = \log \left(\frac{1000}{\text{H}^+} \right), \text{ or more simply as}$$

$$\text{pH} = 3 - \log (\text{H}^+).$$

Referring to Figure 1, Dr Walt remarks that 'although the general pattern of acidity is similar no point coincides'. In fact the total lack of coincident points arises solely from the choice of the range shown for pH. It is the pattern which is important, although this too will differ visually with changes in scale.

Dr Walt uses the skewed distribution of pH recordings shown in Figure 4 to justify the use of medians and ranges to summarise data from several patients. That figure provides no such justification as it includes the changes over time. The distributions to investigate are those of the recordings at fixed times. These may indeed be similar to Figure 4, but they are certainly not necessarily so.

Because of the non-linear relationship between the two measurements, if pH recordings are distributed normally then H^+ activities could not be, and *vice versa*. A normally distributed measurement could be analysed parametrically, and used, if required, to provide summary values in the units of the other measurement *via* the transformation. Arithmetic averages would be appropriate only for the former measurement. The use of median values obviates the need to decide which, if either, of pH and H^+ activity should be analysed parametrically. With an odd number of patients, the analysis of median

Metabolism and nutrition in liver disease Edited by E Holm and H Kasper. (Pp. 402; illustrated; £45.00.) Lancaster: MTP Press, 1985.

Infectious diarrhoea in the young Edited by S Tzipori. (Pp. 524; illustrated; \$98.50.) Excerpta Medica 1985.

News

Hopkins Endoscopy Prize

The Hopkins Prize is offered annually for a paper on any topic relating to endoscopy. Applicants are invited to submit a three page summary of the proposed paper to the Endoscopy Committee of the BSG who will recommend to Council the recipient of the 1987 Award. The recipient will present a 15 minute paper at the Jubilee Meeting in September 1987 and will receive a prize of £100 and a permanent memento. Applications (four copies) should be submitted to: Surgeon Commander R J Leicester, The Royal Naval Hospital, Haslar, Gosport, Hampshire PO12 2AA. CLOSING DATE FOR ENTRIES: 1 MARCH, 1987.

Emanuel Lee Scholarship Fund

St Cross College, Oxford is to establish a scholarship to mark Emanuel Lee's contribution to medicine and the College. Those wishing to contribute should apply to Dr S R Porter, Bursar, St Cross College, Oxford.

Trace Elements in Human Health and Disease

2nd Nordic Symposium, 17-21 August, 1987, Odense University, Odense, Denmark. Information may be obtained from: Trace Elements in Human Health and Disease, Odense Tourist Association, The Town Hall, DK-5000 Odense C, Denmark.

Clinical Controversies in Inflammatory Bowel Diseases

An international symposium on the above will be held in Bologna, Italy from 9-11 September, 1987. Further information may be obtained from Mrs Claudia Servi, SO.GE.PA.COS.p.A, Piazza Costituzione, 5/c, 40128, Bologna, Italy.

Correction

The references were unfortunately omitted from the letter by D'Amato *et al* (*Gut* 1986; **27**: 1228) and these are printed below.

References

- 1 Gomes P, Dubulay C, Smith CL, Holdstock G. Relationship between disease activity indices and colonoscopic findings in patients with colonic inflammatory bowel disease. *Gut* 1986; **27**: 92-5.
- 2 Best WR, Beckett JM, Singleton JW, Kern F. Development of a Crohn's disease activity index. *Gastroenterology* 1976; **70**: 439-44.
- 3 Harvey RF, Brandshaw JM. A simple index of Crohn's disease activity. *Lancet* 1980; **1**: 514.
- 4 Truelove SC, Witts LJ. Cortisone in ulcerative colitis. Final report on a therapeutic trial. *Br Med J* 1955; **2**: 1041-8.
- 5 Powell-Tuck J, Day DW, Buck NA, Wadsworth J, Lennard-Jones JE. Correlation between defined sigmoidoscopic appearance and other measures of disease activity in ulcerative colitis. *Dig Dis Sci* 1982; **27**: 533-7.
- 6 Cooke WT, Prior P. Determining Disease Activity in Inflammatory bowel disease. *J Clin Gastroenterol* 1984; **6**: 17-25.
- 7 Cello JP. Ulcerative colitis. In: Sleisenger MH, Fordtran JS eds. *Gastrointestinal disease*. Philadelphia: W B Saunders Co 1983: 1122-68.

A mistake occurred in the paper by A Sonnenberg entitled 'Dietary salt and gastric ulcer' (*Gut* 1986; **27**: 1138-40) on page 1138, 2nd col, 2nd paragraph, five lines up, it should have read '....reproducible criterion, but for *practical* reasons it is....'. Dr Sonnenberg has also changed his address to Gastroenterology Section, VA Medical Center, 5000 W National Avenue, Milwaukee, Wisconsin 53295, USA.