

Gut

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ACKNOWLEDGEMENT OF MANUSCRIPTS Manuscripts will only be acknowledged if an addressed postcard is enclosed.

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ETHICS Ethical aspects will be considered in the assessment of papers (see the Medical Research Council's publications on the ethics of human experimentation, and the World Medical Association's code of ethics, known as the Declaration of Helsinki (see *Br Med J* 1964; 2: 177)).

SI UNITS All measurements except blood pressure are expressed in SI units. In tables, and illustrations values are given in SI units, but a conversion factor must be supplied. For general guidance on the International System of Units and some useful conversion factors, see *The SI for Health Professions* (WHO, 1977). **NB: Such conversion is the responsibility of the author.**

REFERENCES These follow the Vancouver system - that is, references numbered consecutively in the text and listed numerically with titles abbreviated in the style of *Index Medicus*, *Standard journal article* - (list all authors when six or less; when seven or more, list first three and add *et al*): James A, Joyce B, Harvey T. Effect of longterm cimetidine. *Gut* 1979; 20: 123-4. **NB: Accurate punctuation is essential.**

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genesis of ulcerative colitis.¹²⁻¹³ It should not need stating that ulcerative colitis is a chronic debilitating illness characterised by episodic bloody diarrhoea; many patients suffer faecal incontinence, some require surgical intervention, and some are at increased risk of colon cancer. That such patients have a tendency to neuroticism and introversion is, perhaps, not surprising.

We would not wish to discourage the detailed psychological assessment of patients with ulcerative colitis, but this will only improve our understanding of disease pathogenesis if undertaken in the setting of appropriately controlled clinical trials. Further uncontrolled observations would be at best unhelpful and at worst strengthen an already well established bias.

S A RILEY
V MANI
M J GOODMAN
Hope Hospital, Leigh Infirmary,
and Bury General Hospital, Manchester

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Enteropathy associated with HIV

SIR,—We read with interest the study by Cummins *et al* (*Gut* 1990; 31: 317-21) on the enteropathy associated with HIV infection. There is a growing body of evidence for small bowel pathology in patients infected with the human immunodeficiency virus (HIV), and there is broad agreement that atrophy of villi is characteristic of such enteropathy.¹ Furthermore, there is evidence that jejunal mucosal pathology has functional importance in that reduced fat absorption correlates with the degree of villous atrophy.²

There are, however, conflicting reports on the changes in crypt cell proliferation in association with such villous atrophy. The paper by Cummins *et al* reports jejunal crypts of normal length, but with increased mitotic rate, in HIV infected patients. This is in general agreement with our own findings.¹ As Cummins *et al* reiterate, we found a broad spread in crypt length in our patients, ranging

from hypoplastic (in one patient with AIDS) through normality to hyperplastic. However, the mean jejunal crypt length in our total of 20 HIV infected patients suggested hyperplasia. Notably, we found a strong correlation between the degree of atrophy of villi and the degree of hyperplasia of crypts, and faced with these data it is difficult to avoid the conclusion that there may be a causal (rather than coincidental) relation between these two variables.

It is well recognised that enteric infection may induce hyperplastic villous atrophy, and no doubt the dynamics of HIV enteropathy are complicated by opportunistic infections (even, possibly, with as yet unrecognised pathogens).³ Ullrich *et al*⁴ have attempted to unravel the two, and have described an HIV specific hypoplastic enteropathy, masked in some patients by the crypt hyperplasia induced by secondary pathogens. We quantified hyperplastic HIV enteropathy also in the absence of identifiable opportunistic infections, but the paper by Cummins *et al* fails to exclude the effects of other pathogens.

Clearly, the mechanisms underlying the villous atrophy of HIV enteropathy remain elusive and are likely to be multifactorial. Its clarification may have to await an *in vitro* or animal model of HIV infection, when complicating factors can be carefully controlled.

P A BATMAN
Department of Histopathology,
Bradford Royal Infirmary
M S KAPEMBWA
G E GRIFFIN
Department of Communicable Diseases,
St George's Hospital Medical School,
London

- 1 Batman PA, Miller ARO, Forster SM, Harris JRW, Pinching AJ, Griffin GE. Jejunal enteropathy associated with human immunodeficiency virus infection: quantitative histology. *J Clin Pathol* 1989; 42: 275-81.
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Reply

SIR,—We thank Batman and colleagues, for commenting on our paper. Both ourselves¹ and Ullrich *et al*² have described villous atrophy and impaired crypt hyperplasia of the small intestine in HIV infection, particularly in patients with AIDS related complex or AIDS. Ullrich *et al* further found crypt hypoplasia in AIDS subjects who did not have enteric infections. Batman *et al*³ have argued that the enteropathy of HIV infection has crypt hyperplasia, as they found a correlation of crypt length and villous atrophy, although they could show no difference in crypt length. We nevertheless argue that the enteropathy associated with HIV infection is a different pattern to that seen in other enteropathies, as perhaps best exemplified by coeliac disease in which crypt hyperplasia is clearly discernible both by increased crypt length and increased mitotic count per crypt. One explanation for these data could be that some crypt hyperplasia occurs in HIV infection that has not yet progressed to AIDS related complex or AIDS, especially in response to enteric infections. As CD4 lymphocyte depletion occurs systemically and mucosally,

the immune 'drive' for crypt proliferation is increasingly impaired. Longitudinal studies will help to confirm such an interpretation.

A G CUMMINS
J T LaBROOY
D J C SHEARMAN
Queen Elizabeth Hospital,
Woodville South,
South Australia 5011

- 1 Cummins AG, LaBrooy JT, Stanley DP, Rowland R, Shearman DJC. Quantitative histological study of enteropathy associated with HIV infection. *Gut* 1990; 31: 317-21.
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NOTES

Falk Symposia, 1990

These will take place in Freiburg, West Germany as follows:

- 8-10 Oct Hepatic metabolism
 - 11-13 Oct Bile acids as therapeutic agents
 - 15-17 Oct Mechanisms of peptic ulcer healing
 - 18-20 Oct Inflammatory bowel diseases
- Further information: Falk Foundation eV, Leinenweberstrasse 5, Postfach 6529, D-7800 Freiburg, West Germany.

Endoscopy workshop

The Chinese Society of Digestive Endoscopy, C.M.A. and the Hong Kong Society of Digestive Endoscopy will be holding the International Workshop and Symposium on Therapeutic Endoscopy and Gastroenterology on 9-12 October 1990 in Beijing, China.

Further details: Dr Joseph Leung, Department of Medicine, Prince of Wales Hospital, Shatin NT, Hong Kong. Tel: (852)-6363128/5; Fax: (852)-6350075.

Sir Francis Avery Jones BSG Research Award 1991

Applications are invited by the Education Committee of the British Society of Gastroenterology who will recommend to Council the recipient of the 1991 Award. Applications (15 copies) should include:

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- (2) a bibliography of relevant personal publications;
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- (4) a written statement confirming that all or a substantial part of the work has been personally conducted in the United Kingdom or Eire.

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