

and cathepsin B activity in several individual tissues of foetal and senescent rats. *Comp Biochem Physiol* 1985; **82B**: 849–53.

- 6 Holt RP, Yeh K-y, Kotler DP. Altered controls of proliferation in small intestine of the senescent rat. *Proc Natl Acad Sci USA* 1988; **85**: 2771–5.
- 7 Holt PR, Yeh K-y. Colonic proliferation is increased in senescent rats. *Gastroenterology* 1988; **95**: 1556–63.

Low gluten diet for adult coeliac disease

SIR,—Dr Montgomery and colleagues conclude that adult coeliac patients can tolerate a low gluten diet without developing gross morphological changes in their jejunal mucosa or significant antiglutin antibody responses.¹ These conclusions were based on detailed comparisons of jejunal morphology and serology in groups of patients on low gluten or gluten free diets. In an earlier study from the St Bartholomew's group, 27 of 85 patients with coeliac disease were found to be asymptomatic despite not maintaining a strict gluten free diet.² It would be of interest to know if the 13 low gluten diet patients in the recent study were taken from the 27 that were not maintaining a strict gluten free diet in the first study. If this is the case, I would submit that the low gluten group are a self-selected subset of patients able to maintain good health without adhering to a strict diet, and that it would be premature to conclude that the favourable results in this subset apply to all patients with adult coeliac disease. In order to answer this question, a controlled trial is required randomising unselected patients with coeliac disease in emission to either a low gluten or a strict gluten free diet.

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References

- 1 Montgomery AMP, Goka AKJ, Kumar PJ, Farthing MJG, Clark ML. Low gluten diet in the treatment of adult coeliac disease: effect on jejunal morphology and serum anti-gluten antibodies. *Gut* 1988; **29**: 1564–8.
- 2 Kumar PJ, Harris G, Colyer J, Clark ML, Dawson AM. Is a gluten free diet necessary for the treatment of coeliac disease? [Abstract]. *Gastroenterology* 1985; **88**: 1459.

Reply

SIR,—The patients on the low gluten diet in the paper from *Gut* were not taken from the original study of 85 patients. I would entirely agree with Dr Allison that if this was the case the low gluten group would be self-selected subset of patients. We are currently considering a trial by 'prospectively' putting patients on low gluten diet or maintaining a strict gluten free diet.

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Dietary factors in the aetiology of gall stones

SIR,—Drs Pixley and Mann did not find any association between gall stone disease and different nutrients in their study.¹ They argue that this lack of association could be that all non-vegetarians eat excessive quantities of saturated fat, animal protein, and refined sugar to allow any differences to be detected. Looking at their frequency histograms, a considerable variation in energy intake and intake of different nutrients is seen – for example, from 0 to 180 g of refined sugar. If such a range is not sufficient, what is sufficient?

Evaluating the literature of clinical studies gives the impression of considerable disagreement about the relationship between diet and gall stones. Intake of fat ranges from being positively associated,² not associated³ and negatively associated⁴ with gall stones. The same is seen for energy intake. Clinical studies do not give us an unequivocal answer that any nutrients should be associated with gall stones. But all the clinical studies concerning this subject share one thing in common: they all use prevalence data on gall stone disease. This means that they compare present diet with gall stones which perhaps have been formed years ago. At that time the diet would not necessarily have been the same as it is today, as change in diet over time can be substantial.⁵ It is questionable whether participants' memory regarding their diet over the last 20–30 years is sufficient to state whether it has changed or not. We, therefore, need data from incidence studies comparing dietary habits in those who form gall stones in the study period as compared with those who do not, before we can make a clinical evaluation as regards the association between diet and gall stone disease.

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References

- 1 Pixley F, Mann J. Dietary factors in the aetiology of gall stones: a case control study. *Gut* 1988; **29**: 1511–5.
- 2 Scragg RKR, McMichael AJ, Baghurst PA. Diet alcohol and relative weight in gall stone disease.: a case-control study. *Br Med J* 1984; **288**: 1113–9.
- 3 Sarles H, Gerolami A, Bord A. Diet and cholesterol gallstones. A further study. *Digestion* 1978; **17**: 128–34.
- 4 Wheeler M, Hills LL, Laby B. Cholelithiasis: a clinical and dietary survey. *Gut* 1970; **11**: 430–7.