we have recently found evidence of severe ultrastructural damage to rat pancreas 14 days after pancreatobiliary diversion. Treatment with CR-1409 largely prevents degranulation, but vacuolation of acinar cells is still seen.

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Reply

EDITOR.—We are fully aware of and agree with the results of the excellent study by Professor Williamson et al on pancreatic changes related to surgical procedures with hormonal aberrations in the rat. We apologise for not having cited any of them in our paper (Gut 1993; 34: S38-53). To keep the reference list a reasonable size, however, and for the sake of interpretation and debate, our choice of references was rather specific and aimed at similar studies showing diverging results. Our paper primarily concerned the role of longstanding hypergastrinemia after fundectomy, using pancreaticobiliary diverted animals with hypercholorystokininemia as positive controls. In some aspects, fundectomy simulates severe atrophic gastritis, which is not the case with distal gastric resection or split gastrojejunostomy. In another study in rats focusing on the effects of pancreatobiliary diversion and fundectomy after asazncre exposure (Perez et al 1993; 8: S30-7), the studies of Professor Williamson et al are cited.

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Gall stones and gall bladder motility

EDITOR.—We have read with interest the leading article Gall stones and gall bladder motility (Gut 1993; 34: 440-3). We agree that vagal cholinergic and cholecystokinin mediated hormonal mechanisms are the most important factors in controlling gall bladder emptying. With regard to gall bladder emptying after truncal vagotomy, we have recently shown impaired gall bladder emptying after truncal vagotomy, with a higher fasting and residual volume and a decreased ejection fraction. In our subjects, we found gall bladder emptying to have a triphasic pattern with a distinct phase of refilling occurring between 15 and 45 minutes, which separated two contraction phases. Minimum volume was attained between 30 and 90 minutes after the meal. It is speculated that drugs having a prokinetic effect may prove valuable in preventing bile stasis and cholelithiasis in a variety of circumstances.

The effect of cisapride we feel is controversial, however, as in a double blind, prospectively randomised, placebo controlled study we found no prokinetic effect of cisapride either in healthy volunteers or in vagotomised subjects. Another possible prokinetic modality that promises to have clinical benefit is the effect of a rapid intravenous gastric empting which is believed to cause gall bladder contraction and increase cholecystokinin concentrations. This may be potentially important in the prevention of gall bladder sludge in patients on total parenteral nutrition.

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Iron deficiency anaemia

EDITOR.—The comment is well made that the possibility of coeliac disease should be considered in all iron deficient patients, regardless of age (Gut 1993; 34: 1102-7), and this is true also of those who present with dyspepsia and abdominal pain, because these symptoms may be prominent in some patients with this condition. Therefore, if endoscopy proves negative for suspected peptic ulceration or gastric cancer, the diagnostic trap to avoid is that of attributing upper gastrointestinal symptoms to colonic disease without taking the precaution to rule out coeliac disease by means of endoscopic biopsy. Additionally, to heighten the index of suspicion, endoscopists should routinely comment on the appearance of the duodenal folds, because these may be characteristically effaced in some patients with coeliac disease.

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