

Our recent paper<sup>4</sup> focused primarily on describing the histological features of microscopic colitis syndrome in our first 30 well defined cases. We have previously, however, studied different aetiological aspects in both lymphocytic<sup>5</sup> and collagenous colitis.<sup>6</sup> The importance of factor(s) in the faecal stream has also been discussed by others.<sup>7</sup>

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#### **Helicobacter pylori reinfection**

EDITOR,—We read with interest the article by Schütze *et al* (*Gut* 1995; 36: 831-3). It is difficult to agree with their statement 'conjugal transmission of reinfection has been shown to occur for the first time with near certainty'.

Besides transmission from the spouse, there are at least three possibilities of reinfection of their patients. (1) *H pylori* has been demonstrated in the dental plaque of patients from developed<sup>1-4</sup> and developing<sup>5,6</sup> countries. Furthermore, *H pylori* in the dental plaque persists despite its clearance from the gastric mucosa after treatment.<sup>6</sup> Hence, dental plaque is considered a potential source of reinfection by the same strain of *H pylori*.<sup>7,8</sup> (2) It is possible that both the patient and the spouse had acquired infection of the same strain of *H pylori* from a common source. Contaminated water supply has been previously shown to act as common reservoir of infection.<sup>9</sup> The fact that the prevalence of serum antibodies to *H pylori* and hepatitis A virus in different age groups of subjects, both in developing (50% at 5 years) and developed (50% at 50 years) countries is comparable, shows faeco/oral mode of transmission of *H pylori* and hepatitis A virus.<sup>10</sup> (3) Intra-familial spread from another member of the family has been reported.<sup>11</sup> The study does not provide any data of other family members or the exact mode of transmission (kissing?) from the spouse.

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#### **Reply**

EDITOR,—In our publication an autoreinfection has been discussed as a possibility but simultaneously considered as highly unlikely as the reinfections occurred as late as after 14 and 43 months, respectively.

The possibility of a common exogenous source cannot be ruled out but it seems rather unlikely and has also been discussed in our publication. The possibility of a contaminated water supply is extremely unlikely as water supplies in Vienna originate from Alpine sources and are renowned for their excellent quality.

The patients studied in our project were married couples without any other family members.

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#### **Gastric emptying in patients with insulin dependent diabetes mellitus**

EDITOR,—The paper by Nowak *et al* (*Gut* 1995; 37: 23-9) reports on the highly variable gastric emptying rates in patients with diabetes mellitus. The finding of accelerated (apart from the classic delayed) gastric emptying in humans with insulin dependent diabetes mellitus is consistent with previous findings.<sup>1</sup> The authors investigated the possible correlation between gastric emptying and chronic renal failure caused by diabetes. As the values obtained in this study have a very wide distribution, they concluded that the influence of chronic renal failure on gastric emptying cannot be estimated from their own results. However, chronic renal failure is associated with autonomic neuropathy<sup>2</sup> like diabetes mellitus and it would have been important to know the authors' comments on the role of the autonomic nervous system in their patients with chronic renal failure resulting from diabetes.

In another study,<sup>3</sup> small groups of patients

with chronic renal failure of non-diabetic aetiology given longterm dialysis showed different patterns of gastric emptying depending on the involvement of the autonomic nervous system. In subjects with no autonomic neuropathy gastric emptying was faster than normal. In subjects with only parasympathetic neuropathy gastric emptying was similar to controls but in subjects with both parasympathetic and sympathetic autonomy, it was delayed. In this study gastric emptying was measured from the sonographic registration of antral area variation, according to Bolondi.<sup>4</sup> This method has a good correlation with the radioisotopic method.<sup>5</sup> The spectrum of the gastric emptying curves of the patients studied by Nowak *et al* seems to be influenced by autonomic neuropathy in the same manner. We believe that a similar approach focused only on chronic renal failure resulting from diabetes mellitus will bring similar results. Indeed, as Nowak *et al* show, autonomic neuropathy is the main factor that changes the emptying of the stomach.

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#### **Reply**

EDITOR,—The study performed by Dr D L Dumitrascu *et al*<sup>1</sup> is indeed relevant to our article, which describes highly variable gastric emptying in patients with diabetes mellitus and we appreciate his comments. Our study showed that some diabetic patients have rapid gastric emptying, some have a normal rate of gastric emptying, while others have what is appreciated to be delayed gastric emptying - that is, 'diabetic gastroparesis.' The precise mechanism responsible for the variability in gastric emptying in diabetic patients is unknown although autonomic neuropathy has been incriminated. In our study nearly all of the patients showed evidence of parasympathetic autonomic neuropathy evidenced by an abnormal respiratory variation in heart rate (E:1 ratio). Those patients who had autonomic sympathetic neuropathy, evidenced by orthostatic hypotension, showed a significantly longer half time of gastric emptying than non-diabetic control subjects. Likewise, those patients who did not have evidence of sympathetic autonomic neuropathy showed a significantly faster gastric emptying half time (accelerated gastric emptying) than non-diabetic controls. Finally, our study showed that the duration of diabetes was significantly correlated with the gastric emptying shape coefficient, implying that a longer duration of diabetes is associated with a slower rate of gastric emptying. Our findings lead us to speculate that short-term diabetes mellitus is