Letters

Reply

Editor,—We agree with Hendrix and Yardley that *Helicobacter pylori* infection with hypertrophic gastric folds and a protein loss syndrome should in future be termed merely ‘*H. pylori* gastritis’ and not Ménetrier’s disease; and further, that on detection of hypertrophic gastric folds a search should be carried out for other possible infectious causes or underlying diseases with hypertrophic folds, or both. In the past, this has not been done, either in case reports or reviews of large numbers of cases of Ménetrier’s disease. In particular, most publications failed to evaluate inflammatory infiltration as an exclusion criterion for Ménetrier’s disease. Thus, for example, Schindler1 described Ménetrier’s disease in his article on ‘hypertrophic glandular gastritis’, and Scharschmidt2 in his review, expressly emphasised that ‘round cell infiltration of the lamina propria was also frequently noted and was very prominent in some cases’ of Ménetrier’s disease.

The suggestion that only massive hyperplastic hypersecretory disease of the stomach should be termed Ménetrier’s disease, was made comparatively late by Appelman,3 but was often ignored. The cases of Ménetrier’s disease reported from the Mayo Clinic were, for example, accepted as true Ménetrier’s disease when ‘a hypertrophic gastropathy with hypoproteinæmia’ presented. Indeed, in the first synopsis of 43 patients, a ‘systematic histologic study of the gastric mucosa’ was even deliberately not undertaken.4 In the latest review of the Mayo Clinic cases, it was then shown that a comparatively large percentage of these patients had a ‘lymphocytic gastritis’, also with loss of protein,5 and recall that the former ‘gastritis en nappe’ has more recently been shown to be a special form of lymphocytic gastritis, and that this gastritis can also include appreciable foveolar hyperplasia and also take into account the fact that Ménetrier made reference to ‘polyadenomes gastriques’, which he further subdivided into ‘polyadenomes polypeux’ and ‘polyadenomes en nappe’, there are justifiable doubts whether Ménetrier’s disease as such ever was an individual entity in the first place.

The description ‘polyadenomes polypeux’ given by Ménetrier himself, did not include macroscopically evident hypertrophic gastric folds, and his histological description fits that of present day ‘hyperplastic’ polyps, which the drawing of the macroscopic findings in Ménetrier’s publication also seems to confirm, as it shows multiple polyps in the antrum and corpus, but no hypertrophic folds. Also, in these polyps — in contrast with the interpretation of Hendrix and Yardley — Ménetrier described an inflammatory infiltrate (‘infiltré de cellules migratrices’). And also in the case of the ‘polyadenomes en nappe’, Ménetrier noted ‘des phénomènes de gastritis chronique’.

When it is further considered that the historical technology of 1888 was, of necessity, inferior to that of the present day, that the descriptions were based on microscopy and in those days, and that we now know that ‘polyadenomes en nappe’ changes in the corpus and fundus are typical of lymphocytic gastritis, doubts that Ménetrier had ever really described an individual entity or that the cases of Ménetrier’s disease published over the past decades really represented an individual entity, are considerably strengthened.

Our case history was intended merely to draw attention to the fact that when the clinical and endoscopic pictures suggest Ménetrier’s disease, we should in future give more consideration to the possibility that the patient really has a condition previously described as gastritis, which can then be cured by eradication of the *H pylori*.

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Polyethylene glycol (PEG) as a marker of small intestinal permeability

Editor,—We were very interested to read the paper by Peeters et al who, in an attempt to standardise intestinal permeability tests, have studied the effects of probe solution composition and osmolality on the permeability of C12-PEA and PEG 400 (MW 280–634) across the small intestine (Gut 1994; 35: 1404–8). We endorse the need for standardisation in the conduct of small intestinal permeability tests and in a recent investigation of the effects of hydration status on urinary probe recovery in normal subjects we found that fluid hydration had a considerable effect on the recovery of PEG (MW range 280 to 1100). In contrast, mannitol and lactulose recovery were not affected.1 Peeters et al described a narrow range of values (PEG 400) and found that the permeation of both markers was significantly reduced in the presence of lactulose. We wonder whether differences in the hydration status of their subjects might explain their results.

The dependence of PEG permeation on the state of subjects’ hydration at the time of the test is just one problem facing those determined to use PEG as a marker of small intestinal permeability. PEG 400 is absorbed by the body much more rapidly than other probes of similar molecular weight such as lactulose (MW 342) and the absorption of PEG is reduced in conditions associated with flatus mucosa whereas that of lactulose increased.2 These anomalies have never been fully explained by the proponents of PEG as a passive permeability marker. In their recent paper, Peeters et al have attempted to explain the unusually avid permeation of PEG 400 in comparison with the same probe of similar size on the basis of theoretical considerations regarding the long, thin shape of PEG. It has been proposed that PEG has access to absorptive areas inaccessible to other molecules of comparable size because of its shape.3 However, this theory has not stood up to experimental analysis.4 Furthermore the concept of PEG as a long, thin molecule does not take into account the fact that PEG in may be much larger because of hydrogen bonding by the available ether oxygen atoms along the backbone of the molecule. Another possible explanation for the avid permeation of PEG across cell walls is because PEG is lipid soluble, it interacts with the phospholipid bilayer of the cell wall.5 In a recent in vitro study comparing PEG with lactulose and mannitol we were able to show that PEG 400 (in comparison with other molecules) could traverse lipid barriers with comparative ease.6 Another problem with the use of PEG as a marker of intestinal permeability is the wide variability in the recovery of the small intestinal mucosa in a range of PEGs is comparatively delayed in normal subjects, suggesting a slow wash out of these molecules from the extracellular space into the circulating fluid.7

Given all these problems with regard to the permeation of PEG across the intestine and its subsequent urinary recovery we suggest that the time has probably come for this molecule to finally be abandoned as a marker of passive small intestinal permeability in vivo.

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