

## Correspondence

### Scintigraphic assessment of oesophageal motility

SIR.—We read with great interest the recent paper by Mughal *et al* (*Gut* 1986; 27: 946–53). We are, however, worried about the validity of their conclusions for a number of reasons.

The upper limit of their normal range of radionuclide transit of the oesophagus (RT) was 17 seconds, but in the literature this figure is usually significantly lower.<sup>1–3</sup> We found in a reference group of normal subjects the upper limit to be 11.2 seconds. A value of 17 seconds may suggest inherent technical problems, which, in case, would affect both asymptomatic and symptomatic patients. Alternatively, some of the 'asymptomatic patients' (who were not characterised in the paper) might suffer from various kinds of oesophageal dysfunction.

The authors explain that they only made a single RT measurement in each patient, because other groups found the method to be highly reproducible. On the other hand they argue that RT probably has a significantly false positive rate because of (1) technical reasons and (2) 10–50% failure to generate propagated peristalsis in 22% of asymptomatic patients.

In contrast, they have no reservations about the reliability of manometry as the golden standard in all kinds of disturbed oesophageal function, despite the fact that it requires 'Considerable experience and expertise in its performance and interpretation', and that 'the interpretation is controversial'.

It is certainly well known that RT may be normal in cases of diffuse oesophageal spasm, currently only demonstrable by manometry. Accordingly RT must sometimes be falsely negative in oesophageal disorders. On the other hand if a normal range is well established, then patients with abnormal RT values by definition do have some kind of (oesophageal) dysfunction, even if manometry is normal. Whether such patients have clinically oesophageal disease, remains to be established.

Being a 'rapid, single and non-invasive test . . . easily done in any hospital with standard gamma camera equipment', RT certainly deserves to be more carefully tested against all possible sources for reaching the diagnoses.

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### Reply

SIR.—In reply to the comments by Jørgensen *et al*, we are well aware of the difficulties and limitations of oesophageal manometry and we have addressed this problem in a manuscript to be published in the *British Journal of Surgery*. So, when four years ago we embarked on a study of radionuclide transit (RT), we did so with hope and enthusiasm. Sadly, after 300 studies (twice the number in our paper), we came to the conclusion that RT was of limited value in clinical practice. We would rather perform manometry (an invasive test requiring considerable expertise) than RT because despite its limitations, manometry gives us information on which we are prepared to take decisions regarding management.

We obtained a value of 17 seconds for the upper limit of normal RT from a study of 58 asymptomatic subjects – to the best of our knowledge the largest control group in any study of RT published at the time we submitted our manuscript. Contrary to what Jørgensen *et al* imply, we did characterise the control group – ' . . . 58 asymptomatic subjects (37 men, 21 women; mean age 31 years)' – on the first page of our paper. In fact, the value of 11.2 seconds obtained by Jørgensen *et al* is no more in line with the upper limit of normal in other published studies than is our figure of 17 seconds. Depending on which study is cited, the upper limit of normal varies between 15 seconds<sup>1,2</sup> and 9 seconds.<sup>3</sup> What is more, if the data of two of the groups<sup>1,2</sup> who use a threshold of 15 seconds are reanalysed by changing the threshold to our figure of 17 seconds, it makes virtually no difference to their results. This is in keeping with our impression that when RT is abnormal, it is very abnormal; in our study of 300 patients, 95% of the RT values were either less than 15 seconds, or more than 20 seconds.

Two RT studies were carried out in five asymptomatic subjects (as stated in our paper). In two cases one test was abnormal while the other was normal, indicating the variation in the transit of liquid from

one swallow to another in the same individual. Although there is a similar variation in manometrically recorded swallow wave profiles, it is our practice to record at least 10 swallows in each third of the oesophagus. Thus a 'freak' swallow is unlikely to affect the interpretation of manometry.

To us, RT gives no additional information to what can be gleaned from a careful review of a recorded barium swallow, a test which would be done in any case in most patients presenting to us with dysphagia. Indeed, Lorber and Shay<sup>1</sup> were using liquid barium transit measurement as long ago as 1955 in the assessment of dysphagia. To date, the published and presented work on RT has failed to convince us that it is a test which can justifiably claim its place alongside barium studies, endoscopy, oesophageal manometry, and 24 hour pH measurement, as clinically useful tests of oesophageal function.

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#### Collagenous colitis and coeliac disease

SIR,—Hamilton *et al* recently described two patients with coeliac disease and collagenous colitis (*Gut* 1986; **27**: 1394). They failed to find any previous incidence of this association. We have also encountered a similar case, resulting from our study of rectal biopsies in coeliacs.<sup>1</sup>

A 29 year old woman presented with a six week history of watery diarrhoea and 1 stone (6.3 kg) weight loss. At sigmoidoscopy an erythematous inflamed mucosa was seen and histopathology showed moderate inflammatory cell infiltration with gross thickening (20 µm) of the basement membrane in the

superficial lamina propria. This collagenous band was demonstrated with haematoxylin and eosin, and reticulin stains. A jejunal biopsy was then done and it showed subtotal villous atrophy with no evidence of subepithelial collagen. The Hb was 15.5 g%, folate 177 ng/ml, albumin 28 g/l and HLA typing was B8. The patient started a gluten free diet and the jejunal mucosa recovered and the diarrhoea settled.

This woman illustrates several interesting features: (1) Collagenous colitis usually occurs in middle aged or elderly women, whereas this patient was 29 years. (2) This is the third report in the literature of this association suggesting that there may be many more and a possible related aetiology. (3) The diarrhoea settled soon after starting a gluten free diet and this has not been previously documented. (4) This patient had not been on a gluten free diet before the diagnosis of collagenous colitis, unlike those reported by Hamilton *et al*.

We recommend that all coeliacs who develop diarrhoea after strict adherence to a gluten free diet, should have a rectal biopsy.

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## Books

**Recent advances in hepatology. Vol. 2.** Edited by Howard C Thomas and E Anthony Jones. (Pp. 193; illustrated; £38.00.) Edinburgh: Churchill Livingstone, 1986.

The aim behind this particular series of update volumes is to cater for the practising physician and surgeon, in particular to help him with the research literature by providing a well balanced analysis by experts in those particular areas who have continued to work in clinical medicine. The subjects selected range over a very wide area indeed. They include mechanisms of hepatocellular degeneration and death, bilirubin metabolism, hepatitis B and the delta virus, with subsequent chapters on management including ascites, biliary obstruction, liver failure and transplantation. The last two particularly were disappointing, the transplantation chapter being concerned only with a particular review by the author of results from eight centres up to 1984, and there has of course been a tremendous development of the procedure since that