LETTERS TO THE EDITOR

Pressure-volume characteristics of the rectum

Sir,—The paper by Kendall and colleagues (Gut 1990; 31: 1062–8) raises several methodological problems. Digital rectal examination alone is not sufficient to ensure that the whole rectum and lower sigmoid colon is devoid of faeces. We recommend the use of a paediatric sigmoidoscope without insufflation to ensure an empty vesix before embarking on a proctometrogram.1 In support of this we have radiological evidence that the proctometrogram balloon expands into the upper rectum and lower sigmoid during distension. The presence of faeces in the upper rectum could appreciably alter the characteristics of a proctometrogram. Furthermore, no information is provided about the level of balloon placement in the rectum.

In our experience the proctometrogram balloon never empties completely upon deflation and hence retains variable but appreciable amounts of perfusion fluid at the end of a study while still in the rectum. Repeated distensions at five minute intervals as described in their study may therefore be subject to inaccurate interpretation as this variable residual amount is not accounted for. The use of a fluid perfused system to measure intraballoon pressure is subject to well known inaccuracies which we encountered by the solid state microtransducer system used in our study.

The frequency of the irritable bowel syndrome is such that these patients may have inadvertently included in their non-subject group. It is now also known that subtypes within irritable bowel syndrome differ greatly in their manometric manifestations.2 The comparisons between irritable bowel syndrome patients and control subjects furthermore may not be relevant as the groups were not matched for age or sex. The inclusion of six patients with prior hysterectomy in the irritable bowel syndrome group could further invalidate the comparison as this operation can result in motility disturbances of the colon and rectum.

These various considerations will influence the acquisition and interpretation of data obtained from proctometry. In a study by H Nyhlin (personal communication) 11 patients with irritable bowel syndrome were compared several days apart before and after the introduction of an oral compound which proved to have no influence on colorectal motility. The rectal compliance measurements of the studies were 4.6 (0.92) and 4.4 (0.46) ml cm H2O (mean (SEM)); 95% confidence intervals −2.3, 1.9; not significant. The normal range for the same laboratory is 8.7 (0.4) ml cm H2O.

In our experience functional abnormalities not detectable by other means have been brought to light by the proctometrogram.3 Our data on reproducibility have been substantiated by Sun et al4 who also suggest that rates of inflation can influence the results obtained.

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