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SIMETHICONE COATED CELLULOSE AS AN ORAL CONTRAST AGENT FOR ULTRASOUND OF THE UPPER ABDOMEN

SIR – Comparison with tap water, with or without a bubble breaker, would be of more interest than a repeat study with a larger population to assess the full potential of simethicone coated cellulose [1].

We use up to 800 ml water which the patient drinks while sitting. The patient then lies in the right decubitus position. At this point gas bubbles are present which rapidly ascend and clear the field of interest. The patient then lies supine and we complete the examination of the pancreas and retroperitoneum. We routinely obtain diagnostic images of the retroperitoneum and pancreas.

Whilst using this method, bubbles have not been a significant problem. Rather, the rapid flow of water into the duodenum can limit the time the retroperitoneum is optimally visualized. Water has the advantage that it is free, ubiquitous and does not need FDA approval.

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Reference

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THE RADIOLOGICAL INVESTIGATION OF SUSPECTED LOWER LIMB DEEP VEIN THROMBOSIS

SIR – For those who carry out a substantial number of venograms [1] the following may be of interest. Until recently, half of our patients with suspected lower limb deep vein thrombosis (DVT) were investigated with venography as some of our clinicians wished to detect and treat isolated calf vein DVT.

However, since two of our radiographers were trained to carry out venous ultrasound, venography requests have virtually disappeared, presumably due to the prompt service provided.

The training was easily arranged. The radiographers went on the 2-day ATL vascular course and spent a half day scanning veins with the ATL and Toshiba application specialists and another radiographer experienced in this technique. Each then had the next 30 investigations audited against a radiologist carrying out either ultrasound or venography. Following satisfactory performance in the audit the radiographers were allowed to carry out and report under protocol.

Those wishing to change from venography to ultrasound would want to know that the strategy is commonplace [1], safe [2], and not associated with an increased incidence of post thrombotic syndrome [3].

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MAGNETIC RESONANCE CISTERNOGRAPHY IN THE LOCALIZATION OF CSF FISTULAE

SIR – It is important that the value of a new technique such as magnetic resonance cisternography (MRC) is rigorously tested by a number of different workers. It is therefore doubly unfortunate that the article by Hegarty and Miller [1], which sets out to test the value of MRC, is so flawed in design that it is of doubtful value and that its conclusion erroneously brings the technique into disrepute.

As most CSF fistulae are a very few millimetres in size, it is essential to optimize imaging protocols so that these lesions can be reliably detected. As detailed in a number of studies, this requires parameters approximately as follows: a field of view (FOV) of approximately 20×20 cm, a matrix of at least 192×256 (we routinely use 256×512), a slice thickness of (at most) 3 mm and a minimal (preferably zero) interslice gap. The signal-to-noise ratio will, of course, be greater at higher field strengths. Imaging should be performed in two planes perpendicular to the breached bone (coronal and sagittal in the anterior cranial fossa). Fistulae can be recognized as continuity of signal between a CSF cistern and an air cell across a dural/osseous defect although even using optimal high resolution thin slices, partial volume averaging can result in the fistula being slightly less intense than CSF. Using such a protocol, the fistula can be localized with a high level of sensitivity and specificity [2–4]. At our centre, MRC is the primary radiological investigation in all patients with CSF leaks. Where bone detail is required, thin-section (2 mm), high-resolution images can provide complimentary information.

In their article, Hegarty and Millar have performed imaging on a 0.5 T unit in coronal and axial planes using 5-mm slices and an interslice gap of 2 mm. They fail to mention the matrix size or FOV used but from one of the figures it can be gleaned that these are 256×192 and 24×24 cm, respectively. With such thick sections of relatively low resolution performed in only one plane perpendicular to the cribriform plate and at low field strength, it is hardly surprising that such a small structure as the cribriform plate and its immediately related structures appear as a hazy blur with apparent continuity of high signal across the bone and dura. The images obtained are unrepresentative of the technique of MRC as it should be performed and using the protocol outlined above, we have as yet had no false-positive results. Although their article does emphasize the need to be cautious and to diagnose the site of fs istula only where continuity of high signal can be strictly demonstrated across a dural/osseous defect, their conclusion that 'using MRI as the initial radiological investigation in the localization of CSF is of such low specificity that it is of little or no value' is invalidated by the quality of the data in the study and should not be allowed to go unchallenged. A more appropriate conclusion of their article might be 'perform MRC at high field strength and high resolution or else it is of such low specificity that it is of little or no value'.

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SIR – I would like to thank Dr McConachie for his interest in our paper and the opportunity to reply to his comments. I can understand that he is disappointed by the results of our study but I am puzzled why he feels it is necessary to multiply this by a factor of two.

Dr McConachie suggests that the images presented are unrepresentative of how magnetic resonance cisternography should be performed. They are however representative of how it has been performed in the majority of the studies that claim value for the technique. For instance, the study by Wakhloo *et al.* [1] employed an 8–10 mm slice thickness at 0.23 T field