

Randomized controlled trial of open and closed haemorrhoidectomy.

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Correspondence

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Enteral nutrition is superior to parenteral nutrition in severe acute pancreatitis: results of a randomized prospective trial

Sir

Kalfarentzos *et al.* are to be congratulated for demonstrating that enteral nutrition may be administered with safety to patients with severe pancreatitis (*Br J Surg* 1997; 84: 1665–9), but some of their conclusions should be discussed.

Targets for energy and nitrogen delivery, related to body mass, were determined but the mean daily intakes achieved were below this. Actual energy delivery was only three-quarters of that intended and no explanation was given. If feed reformulation would have allowed more complete nutrition by one route over another, the discrepancy might be of significance. Some patients developed diarrhoea, but it is unclear whether this was a consequence of the route of feeding and if the manner of feed delivery therefore was changed. Maintenance of nutritional status was the central aim of the study and was inferred from urinary nitrogen balance studies. In patients with severe pancreatitis substantial nitrogen loss occurs in the acute-phase response and as a consequence of pancreatic necrosis and its resection. Assessment of urinary nitrogen loss alone would seem insufficient to determine whole-body balance in this context. The authors stated that enteral and parenteral nutrition were equally effective to maintain lean body mass, but provided no evidence to support this. Body composition was not directly measured. It was implied that, because urinary nitrogen balance was similar in the two groups, lean body mass must have been similarly preserved; this is a bold assumption. Deduction of change in body composition from nitrogen balance is only possible when assessment of balance is complete and initial body composition is known¹. No data regarding the nutritional status of the patients at inclusion in the study were provided. Accurate measurement of body composition in critically ill patients may be impossible because of practical limitations but muscle function is related to lean body mass and improved function may precede restoration of lean body mass when nutritional support is provided². Non-dominant hand grip strength or FEV₁ (forced expiratory volume in 1 s) could perhaps have been assessed during the study.

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1 King RFGJ, McMahon MJ, Burkinshaw L, Laughland A, Almond DJ, Yeung CK *et al.* A comparison of changes in body nitrogen measured by *in vivo* neutron activation analysis and urinary nitrogen balance. *Clin Nutr* 1988; 7: 231–6.

2 Hill GL. Impact of nutritional support on the clinical outcome of the surgical patient. *Clin Nutr* 1994; 13: 331–40.

Author's reply

Sir

We thank Mr Everitt for his comments on our study and will respond briefly to each point.

First, regarding target values for energy and nitrogen delivery *versus* actual values, we wish to point out that target values are expressed as total kcal per kg per day (Patients and methods: Randomization and nutrition methods) whereas actual energy delivery is expressed as non-protein kcal per kg per day (Results: Tolerance and nutrition data). The actual delivery, if expressed

as total kcal per kg per day, is 29–30 and therefore not significantly different from target values. Protein delivery was also comparable to target value (1.43–1.45 g per kg per day *versus* minimum target value of 1.5 g per kg per day).

The incidence of diarrhoea was not significantly different between groups; we considered that this did not depend on the route of feeding, but rather on other factors. Neither the manner of feed delivery (continuous 24 h infusion in all patients) nor the rate of infusion were changed for this reason in any patient during the course of the study.

Finally, we agree that the use of nitrogen balance alone may not be the best way to determine lean body mass. However, this was the best method available to us at the time. We have no means of directly measuring body composition that would not only have been very expensive but, as Mr Everitt himself points out, extremely difficult if not impossible to perform accurately in these critically ill patients. Non-dominant hand grip strength and FEV₁ would have been equally difficult to assess.

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Randomized controlled trial of open and closed haemorrhoidectomy

Sir

I read with interest the article by Ho *et al.* (*Br J Surg* 1997; 84: 1729–30). We have been performing closed haemorrhoidectomy with local anaesthesia¹ for over 30 years and find the paper's conclusion unacceptable and the reported complication rate high.

The technique of closed haemorrhoidectomy described by the authors is not as performed by most surgeons in the USA and not as originally described by Ferguson and Heaton².

Diathermy deters from primary healing by first intention. Including small bites of internal sphincter during closure contributes to dehiscence by pulling away the approximated edges following inevitable sphincter contraction. A previous large series showed secondary haemorrhage in 14 of 2274 patients. Only five patients developed infection³. A postoperative bleeding rate of 6 per cent following open haemorrhoidectomy and 9 per cent following closed haemorrhoidectomy is unacceptably high. Faecal impaction following open haemorrhoidectomy can be avoided by administering an appropriate laxative.

The authors suggest that it is arguable whether the wound dehiscence rate of eight of 33 following closed haemorrhoidectomy would be less if fewer than three haemorrhoids were excised. It is our practice to remove three or more haemorrhoids and the haemorrhoidal tissue excised should allow for approximation of the cut edges without tension.

A comparison of the techniques is only valid if they are performed appropriately.

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1 Khubchandani IT. Operative hemorrhoidectomy. *Techniques of Colorectal Surgery. The Surgical Clinics of North America*. Philadelphia, Pennsylvania: W B Saunders, 1988: 1411–16.

- 2 Ferguson JA, Heaton JR. Closed hemorrhoidectomy. *Dis Colon Rectum* 1959; 2: 176-9.
- 3 Khubchandani IT, Trimpi HD, Sheets JA. Closed hemorrhoidectomy with local anesthesia. *Surg Gynecol Obstet* 1972; 135: 955-7.

Authors' reply

Sir

We are pleased that our paper stimulated the interest of Dr Khubchandani. We can understand his hesitancy over the use of diathermy, based on his retrospective experience. None the less, prospective controlled randomized data have shown that, with proper use, this technique was at least as safe as conventional scissors¹. Furthermore, our wound dehiscence rate after closed haemorrhoidectomy (observed with strict prospective methodology) was not more than that previously reported in another controlled randomized study². A comparison of results is only valid if the study methodologies and quality of data are equivalent.

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- 1 Seow-Choen F, Ho YH, Ang HG, Goh HS. Prospective, randomized trial comparing pain and clinical function after conventional scissors excision/ligation vs. diathermy excision without ligation of symptomatic prolapsed haemorrhoids. *Dis Colon Rectum* 1992; 35: 1165-9.
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Comparison of endoanal magnetic resonance imaging with surgical findings in perirectal sepsis

Sir

We enjoyed the article by Abar *et al.* relating to magnetic resonance imaging (MRI) of perirectal sepsis (*Br J Surg* 1998; 85: 111-14), which again demonstrates the value of this technique for preoperative assessment. The authors chose to use an endoanal receiver coil, which increases spatial resolution in exchange for a limited field-of-view, and correctly state that disease lying beyond this will be undetectable. Indeed, failure to visualize a low fistula in one patient, and a supralelevator collection with attendant extrasphincteric track in another, were

blamed on this. This phenomenon is analogous to that encountered with anal endosonography, which may also miss disease beyond the focal range of the probe¹.

Initial reports of MRI in cryptoglandular fistula disease used a body coil², which does not suffer this disadvantage. Although spatial resolution is reduced and the separate components of the sphincter complex are not as well visualized, this does not seem to hinder fistula classification. Studies using body coils have achieved surgical concordance approaching 100 per cent^{3,4}. We have recently completed a prospective comparison of a prototype endoanal coil (Philips Medical Systems, London, UK) and conventional body coil imaging in 30 subjects with complex cryptoglandular disease⁵. Surgical concordance for body coil imaging reached 96 per cent while endoanal imaging could only achieve 68 per cent due to field-of-view limitations similar to those cited by Zbar *et al.* Additionally, anal pain prevented coil insertion in five patients. Complex fistula disease is characterized by remote tracks and collections, intuitively suggesting that body coil examination may be preferable. To our knowledge, dedicated endoanal coils are not yet commercially available despite initial reports 3 years ago⁶.

We do not want to devalue endoanal coils but fistula imaging is possible on the majority of commercially available MRI scanners without resorting to such equipment. Ultimately, examination employing both coils is likely to be the gold standard. We reserve endoanal imaging for 'troubleshooting' but radiological unfamiliarity with fistula classification far outweighs any difference between techniques.

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- 1 Choen S, Burnett S, Bartram CI *et al.* Comparison between anal endosonography and digital examination in the evaluation of anal fistulae. *Br J Surg* 1991; 78: 445-7.
- 2 Lunniss PJ, Armstrong P, Barker PG *et al.* Magnetic resonance imaging of anal fistulae. *Lancet* 1992; 340: 394-6.
- 3 Lunniss PJ, Barker PG, Sultan AH *et al.* Magnetic resonance imaging of fistula-in-ano. *Dis Colon Rectum* 1994; 37: 708-18.
- 4 Beckingham IJ, Spencer JA, Ward J *et al.* Prospective evaluation of dynamic contrast enhanced magnetic resonance imaging in the evaluation of fistula-in-ano. *Br J Surg* 1996; 83: 1396-8.
- 5 Halligan S, Bartram CI. MR imaging of fistula-in-ano: are endoanal coils the gold standard? *AJR Am J Roentgenol* 1998; (in press).
- 6 de Souza NM, Puni R, Kmiot WA, Bartram CI, Hall AS, Bydder GM. MRI of the anal sphincter. *J Comput Assist Tomogr* 1995; 19: 745-51.