References

- 1 London PS. A Practical Guide to the Care of the Injured. London and Edinburgh: E&S Livingstone, 1967: 559.
- 2 London PS. *The Anatomy of Injury*. Oxford: Butterworth-Heinemann, 1991: 64.

We read with interest your editorial 'Fractures of the sternal body' (*Annals*, November 1992, vol 74, p379), but were disappointed to note that the association between these fractures and injuries to the thoracic spine continues to be overlooked.

We have recently been referred two cases where the sternal fracture was noted but the spinal component was only discovered subsequently when the patients presented with a progressive thoracic kyphosis. Jones et al. (1) point out that flexion injury to the spine may cause buckling of the sternum, thus producing a fracture.

We would therefore like to state that as the thorax is a 'closed system', injuries to one element should alert one to the possibility of damage to another, as well as the visceral structures.

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1 Jones HK, McBride GG, Mumby RC. Sternal fractures associated with spinal injury. J Trauma 1989; 29: 360-4.

A prospective comparison of laparoscopic versus open cholecystectomy

We read with interest the paper of SEA Attwood et al. (Annals, November 1992, vol 74, p397) and note their findings of faster recovery in hospital and earlier discharge home of patients after laparoscopic compared with open cholecystectomy. We have recorded subjective fatigue, using a linear analogue scale, and voluntary hand grip strength to assess recovery after cholecystectomy. We have demonstrated significant (P < 0.05) increases in fatigue scores at 24 h after open and laparoscopic cholecystectomy. By 48 h fatigue scores of laparoscopic patients had returned to preoperative levels, while in the open cholecystectomy patients the fatigue score remained significantly increased (P < 0.05). Voluntary hand grip strength was reduced only after open cholecystectomy.

It is generally accepted that postoperative fatigue syndrome after open abdominal surgery may persist for several weeks after operation (1). A delay in return to work of 4 or more weeks among 14% and 30% of American and French patients, respectively, after laparoscopic cholecystectomy has been identified by Vitale et al. (2). This may be due to postoperative fatigue in these patients. In view of this we have been concerned that apparent recovery in the first 48 h after laparoscopic cholecystectomy may to some extent reflect absence of pain and a psychological impression of well-being and that in some patients enhanced fatigue may develop after their discharge from hospital and return to their normal environment.

We have requested that our cholecystectomy patients complete questionnaires detailing actual daily activities and pain and fatigue sensation, using linear analogue scales, over the preceding week, at weekly intervals, for 4 weeks after cholecystectomy. Initial returns indicate that laparoscopic patients remain pain free at home while many open cholecystectomy patients continue to experience pain throughout this 4-week period. Despite this and despite fatigue scores of laparoscopic patients returning to preoperative levels at 48 h after operation (before hospital discharge), there appears to be a trend towards an increase in reported fatigue, above preoperative scores, in the first 2 to 3 weeks after returning home among laparoscopic patients. This is associated with a similar delay in their undertaking normal daily activities and in returning to work. We do not suggest that fatigue sensation in the early period after laparoscopic cholecystectomy is either as great or as prolonged as after an open procedure. However, we suspect that a cohort of laparoscopic patients may experience postoperative fatigue which as yet has gone unrecognised. A final judgement regarding recovery after laparoscopic cholecystectomy must await controlled studies which continue beyond the time of hospital discharge.

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- 1 Christensen T, Bendix T, Kehlet H. Fatigue and cardiorespiratory function following abdominal surgery. Br J Surg 1982; 69: 417-19.
- 2 Vitale GC, Collet D, Larson GM, Cheadle WG, Miller FB, Perissat J. Interruption of professional and home activity after laparoscopic cholecystectomy among French and American patients. Am J Surg 1991; 161: 396-8.

As a gynaecologist who originally embarked on a career in general surgery, I enjoy keeping up-to-date with developments in general surgery and orthopaedics through the pages of the *Annals*

In volume 74, No. 6, I was intrigued by the article about laparoscopic cholecystectomy. I quote: 'The laparoscopic technique gave excellent exposure . . . particularly in the obese patient'. In the November 1992 edition of *Hospital Update*, the editorial concerns itself with the prophylaxis of thromboembolic phenomena, and reminds us that obesity is one of the risk factors for these conditions.

As an SHO to Sir Reginald Murley in the early 1970s, I was impressed by his approach to the obese patient, especially those with gallbladder disease; he insisted that they lose weight before surgery, to make both the anaesthetic and the surgery easier, and thereby safer. Often their symptoms disappeared.

Many conditions that are operated on by surgeons, especially orthopaedic surgeons and gynaecologists, do not 'need' to be treated. We operate to improve the quality of life. I believe that we create a lot of the work that we do, an aspect of our professional lives that deserves to come under scrutiny in the new, cost-effective, National Health Service.

There can surely be no argument that obese patients present problems for all members of the surgical, anaesthetic and paramedical teams, before, certainly during, and more than likely after surgery. In that case resources should and could be saved by avoiding surgery on the obese unless they have urgent or emergency conditions. The same is true of smokers.

But I am only reinventing the wheel! 'If the patient wants me