Letter to the Editor

Diaphragmatic hernia

Sir,

We read with interest the recent review of diaphragmatic hernia by Ellis (1986) and the case report by McIndoe & Hopkins (1986) from our own department. A patient recently under our care emphasizes the difficulty in diagnosis of diaphragmatic rupture – in this case a late and fatal complication of thoraco-abdominal surgery.

A 62 year old man presented with sudden onset of left shoulder tip pain, with epigastric pain and haematemesis. He had not vomited prior to the onset of pain, nor were there other precipitating factors. Four years previously in January 1982 he had undergone radical gastrectomy for lesser curve adenocarcinoma via a thoracoabdominal approach. The radial diaphragmatic incision had been repaired with interrupted linen and catgut. He had remained well and had been reviewed routinely in the outpatient department. He was seen only 3 days before the emergency admission when no gastrointestinal or chest complaints were elicited. Examination on emergency admission revealed him to be tachypnoeic, distressed, with a pulse of 90 beats/minute and a blood pressure of 100/80 mmHg. There were reduced breath sounds and percussion note in the left chest, minimal epigastric tenderness and no signs of peritonism. His white cell count was $17.3 \times 10^9/\text{litre}$ and chest X-ray showed a large left sided pleural effusion. A chest drain was inserted and drained turbid white fluid, and antibiotics were commenced. Attempts at passage of a nasogastric tube failed. In view of the patient's previous malignant pathology a provisional diagnosis of intrathoracic oesophageal rupture was made, although diaphragmatic rupture was considered. Over the subsequent 2 hour period the patient deteriorated rapidly and attempted resuscitation failed. Post-mortem examination showed the left side of the chest to be virtually filled by a large para-hiatal herniation of small intestine which had undergone early infarction. The oesophagojejunal anastomosis was intact.

In retrospect this patient's symptoms, signs and radiology were typical of a diaphragmatic hernia. This complication is well documented following blunt and penetrating thoracic trauma and may occur many

years after injury (Schulman *et al.*, 1985; Arbulu *et al.*, 1965). It has, however, only rarely been reported following previous surgical incision – primarily following transthoracic hiatus hernia repair. Steiger *et al.* (1984) described seven cases following transthoracic Belsey repair, including para-hiatal herniation and herniation through a disrupted counterincision, while Effler (1965) stressed the danger of incisional hernia related to the counterincision of Allison's repair.

Once again it must be stressed that a high index of suspicion is required to allow adequate diagnosis of a potentially curable condition, and this suspicion must extend especially to patients who have undergone diaphragmatic surgery, no matter how many years previously.

S.A. Hill,
B.L. Dowling,
Department of Surgery,
General Hospital,
Northampton,
NN1 5BD, UK.

References

- ARBULU, A., READ, R.C. & BERKAS, E.M. (1965). Delayed symptomatology in traumatic diaphragmatic hernia with a note on eventration. *Diseases of the Chest*, **47**, 527.
- EFFLER, D.B. (1965). Allison's repair of hiatal hernia: late complication of diaphragmatic counter-incision and technique to avoid it. *Journal of Thoracic and Cardiovascular Surgery*, **49**, 669.
- ELLIS, H. (1986). Diaphragmatic hernia – a diagnostic challenge. *Postgraduate Medical Journal*, **62**, 325.
- MCINDOE, G.A.F. & HOPKINS, N.F.G. (1986). 'Spontaneous' rupture of the diaphragm. *Postgraduate Medical Journal*, **62**, 389.
- SCHULMAN, A., FATAAR, S. & ALHEIT, B. (1985). Obstruction-strangulation of post-traumatic diaphragmatic hernia – delayed diagnosis and fatal outcome. *South African Medical Journal*, **68**, 39.
- STEIGER, Z., WILSON, R.F., NELSON, R.M., HUANG, C.L. & JACOBS, L.A. (1984). Iatrogenic hiatal and diaphragmatic hernias. *The American Surgeon*, **50**, 217.