the pericardial fluid lends support to a local mechanism.

Fat necrosis has been well documented in subcutaneous tissues in pancreatitis<sup>7</sup> but it has not previously been described in the mediastinum. Mediastinal extension of a pancreatic pseudocyst has been described, but in our patient neither contrast studies nor computed tomography showed a fistulous connection.

Our case also shows the importance of a multidisciplinary approach, without which our patient would probably not have survived.

- 1 Auger C. Acinous cell carcinoma of the pancreas with extensive fat necrosis. Arch Pathol 1947;43:400-5.
- 2 Mitchell CE. Relapsing Pancreatitis with recurrent pericar-
- dial and pleural effusion. Ann Intern Med 1964;60:1047.

  Lipson JD, Stephenson HE. Pancreatitis complicated by pericardial effusion and cardiac tamponade. Arch Surg 1971:103:414.
- 4 Witherington R, Collins P. Cardiac tamponade in acute pancreatitis. *Thorax* 1980;35:959-60.

  5 Jones B, Haponick EF, Katz R. Fibrinous pericarditis: an
- uncommon complication of acute pancreatitis. South Med J 1987;80:377-8.
- 6 Perry TT. Role of lymphatic vessels in transmission of lipase in disseminated pancreatic necrosis. Arch Pathol 1947; 43:456-65.
- Wilson HA, Askari AD, Neiderhiser DH, et al. Pancreatitis with arthopathy and subcutaneous fat necrosis. Arthr Rheum 1983;26:121-6.

## LETTER TO THE EDITOR

## Intercostal arteriovenous fistula due to pleural biopsy

We read with interest the report by Dr J-H Lai and others (December 1990; 45:976-8) of an intercostal arteriovenous fistula complicating a routine pleural biopsy.

We all agree that this blind procedure may lead to complications that are very occasionally life threatening. To avoid traumatising

the intercostal blood vessels the biopsy needle should be introduced just above the rib as recommended by the authors. In addition, the biopsy groove of the needle should be kept facing either medially or laterally along the intercostal space. The actual direction of the biopsy groove was not stated in this report, though it may have been an important factor complicating the fourth attempt at pleural biopsy.

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AUTHORS' REPLY We are grateful for the reminder about the possibility of placing the biopsy needle in the wrong direction when the pleura is punctured. We agree that this is important. The biopsy was performed with the groove in four directions-medial, medioinferior, inferolateral, and lateral in that order. We had not met the complication of arteriovenous fistula previously. To minimise the risk of injury to intercostal vessels and nerves when the procedure is carried out in this way samples of pleura should be obtained only from the lateral, medial, and inferior margins of the site where the needle punctures the pleura.1

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1 Kinasewitz GT, Fishman AP. Pleural dynamics and effusion. In: Fishman AP, ed. Pulmonary diseases and disorders. 2nd ed. New York: McGraw-Hill, 1988:2133.