Correspondence

Bronchioloalveolar carcinoma arising in longstanding lung cysts

SIR,—We read with interest the paper by Dr MG Pritchard and his colleagues (June 1984;**39**:545–9).

We wish to record a similar case in a 33 year old caucasian woman who presented with a nine month history of shortness of breath and productive cough with two episodes of haemoptysis. She was a non-smoker. On a routine chest radiograph when she was 10 a solitary cyst had been noted in the middle lobe. Her chest radiograph on admission showed a large thick walled cyst with a fluid level. At bronchoscopy the bronchial anatomy was seen to be normal. At thoracotomy the middle lobe was found to be completely replaced by the cyst and the superior margin of the cyst was bordered by neoplastic tissue that extended into the upper lobe. Upper and middle lobectomy was performed. At follow up nine months later the patient was well with no evidence of recurrence.

The middle lobe was replaced by a cyst 7 cm in maximum dimension. The wall of the cyst was firm, white, and mucoid, and there was extensive similar tumour affecting the upper lobe. Microscopically the lung was extensively infiltrated by well differentiated, mucus secreting alveolar carcinoma both around the cyst and in the upper lobe. The cyst wall itself showed a thin rim of mature fibrous tissue containing occasional bronchial glands but no cartilage. These appearances suggest an origin from a bronchogenic cyst or possibly cystic adenomatoid malformation. Hilar nodes contained no tumour.

We believe that this case and the two recently reported by Dr Pritchard and his colleagues are evidence of the need for early surgery because of the risk of associated alveolar carcinoma, a tumour unresponsive to radiotherapy or chemotherapy.[1]

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1 Edwards CW. Alveolar carcinoma: a review. *Thorax* 1984;**39**: 166–74.

Chylothorax after surgery for patent ductus arteriosus

SIR,—Only a few cases of chylothorax have been reported after ligation or division of a patent ductus arteriosus.[1] This is the first case among over 900 patients operated on for division and suturing of a patent ductus arteriosus at our centre.

An 18 month old girl was admitted with a clinical diagnosis of a large patent ductus arteriosus with mild pulmonary hypertension, substantiated by ECG, electrocardiographic, radiographic, and two dimensional echocardiographic findings. A 10 × 3 mm ductus was divided and sutured through a standard posterolateral thoracotomy. The operation was uneventful, without extensive mobilisation or looping of the aorta or ductus. The chest drain was removed on full expansion of the lung after 24 hours.

The child was distressed on the seventh postoperative day and became increasingly dyspnoeic and irritable. Clinical examination revealed a massive left sided pleural effusion, which was confirmed radiologically. A diagnostic pleural paracentesis showed the presence of 350 ml chyle containing protein, cholesterol, and chylomicrons. The pleura was tapped dry but within the next 48 hours chyle reaccumulated. Initially the patient was treated with repeated pleural aspirations, but when the effusion failed to resolve even after daily aspirations for 15 days a tube thoracostomy with underwater seal and slow negative pressure was established. When the lung was fully expanded and the fluid had totally subsided, the tube was removed on the 13th day.

Meanwhile in order to decrease the production of chyle and to replenish the protein losses a dietary regimen was imposed. Parenteral hyperalimentation could not be administered as the patient was poor. Since she was a child, the diet was made palatable, non-monotonous, and adequate in calories, proteins, and carbohydrates but free of fats. These factors were considered in the prescribed diet, which comprised skimmed milk, arrowroot soup, sugar, egg white, kichadi, fruit, and bread. This provided 925 calories, 41 g protein, 175 g carbohydrates, and 4.4 g fats.

She received antibiotics and her nutritional state was monitored. Repeated chyle examinations showed a change from a milky fluid to a watery fluid with decrease in the total cholesterol, triglycerides, lymphocytes, and chylomicrons. Finally the child was discharged home with a fully expanded lung.

Chylothorax can be managed successfully with conservative treatment.[2] A decrease in production of chyle is achieved by oral or parenteral hyperalimentation and the addition of medium chain triglycerides, which are directly absorbed into the blood stream,[3] bypassing the lymphatics and thoracic duct.

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1 Cevese PG, Vecchioni R, D'Amico DF, *et al.* Post-operative chylothorax—six cases in 2500 operations, with a survey of the world literature. *J Thorac Cardiovasc Surg* 1975;**69**:966–71.
2 Jones JC. Twenty-five years' experience with the surgery of patent ductus arteriosus. *J Thorac Cardiovasc Surg* 1965;**50**:149–65.
3 Mosloske AM, Martin LW, Shubert WK. Management of chylothorax in children by thoracentesis and medium chain triglycerides feeding. *J Pediatr Surg* 1974;**9**:365–71.

Notice

International symposium on deposition and clearance of aerosols in the human respiratory tract

An international symposium on the deposition and clearance of aerosols in the human respiratory tract will be held in Salzburg, Austria, on 18 and 19 September 1986 under the combined auspices of the Association for Aerosol Research, the International Society for Aerosols in Medicine, Arbeitsgemeinschaft für Aerosole der Österreichishen Gesellschaft fuïr Lungenerkrankungen und Tuberkulose, and Österreichische Gesellschaft für Hals-Nasen-Ohren-Heilkunde, Kopf- und Halschirurgie. Further details may be obtained from Doz Dr W Hofmann, Abteilung für Biophysik, Universität Salzburg, Erzabt-Klotz-Strasse 11, A-5020 Salzburg.