Intralobar pulmonary sequestration presenting as a psoas abscess

D.G. Sinclair, M. Meredith-Brown

ABSTRACT: Intralobar pulmonary sequestration is a relatively rare congenital anomaly. The commonest clinical presentation is with chronic cough, expectoration and recurrent attacks of pneumonia. An unusual presentation with a psoas abscess is reported.

Correspondence: Major D.G. Sinclair, The Army Chest Unit, Cambridge Military Hospital, Aldershot, Hampshire, UK.

Keywords: Pulmonary sequestration.

Received: June 14th 1989. Accepted after revision.

Case report

A previously well, 29 yr old Caucasian male presented to the hospital in January, 1987, with a 6 month history of pain in the left groin, followed in 3 months by a slowly enlarging swelling at this site. On examination he was afebrile with a non-erythematous, fluctuant 10 cm mass in the left groin. Abdominal examination was otherwise unremarkable. The left hip was held in slight flexion and its movement, particularly extension, was painful. A clinical diagnosis of left psoas abscess was made.

The diagnosis was confirmed by plain abdominal X-ray, which showed loss of the left psoas outline, which was greatly expanded laterally. Chest X-ray demonstrated a 7 cm soft tissue mass in the left lung base posteriorly (fig. 1). Ultrasound examination showed this to be a fluid-filled, multiloculated cavity extending through the diaphragm onto the anterior surface of the left psoas muscle. The appearance was of a left lung abscess, which had drained through the diaphragm into the left psoas sheath.

Incising the swelling in the left groin allowed 1,100 ml of yellow odourless pus to drain, from which no bacteria, including acid alcohol fast bacilli, could be identified or cultured.

Computerized tomography (CT) scan of the chest suggested that the mass in the left lung had its own arterial supply arising directly from the aorta, which suggested that it was an intralobar sequestrated segment (fig. 2). Communication of the psoas abscess with the sequestrated segment was confirmed by a sinogram.

The patient was transferred to the Army Chest Unit and underwent left lower lobectomy and diaphragmatic repair following which he made an uneventful recovery. At operation the CT scan findings were confirmed and a firm cystic mass in the left lower lobe with an aberrant arterial supply from the aorta was found. Gross pathology showed this to be a chronic abscess with a densely fibrosed wall into which the left lower lobe branches passed and became completely atretic. Histological examination showed the wall of the abscess to be lined internally by respiratory epithelium with cilia. These features confirmed the diagnosis of intralobar sequestration.
Fig. 2. - Computerised tomography scan of the chest demonstrating a well-circumscribed mass in the left lower lobe which appears to have its own arterial supply arising directly from the aorta.

Discussion

Intralobar pulmonary sequestration is defined as a congenitally dysplastic area of lung without communication to the bronchial tree that is supplied by an atypical systemic artery, usually arising from the aorta. The affected area lies within the pleura of an otherwise normal lobe. Venous drainage runs into either a pulmonary vein or both systemic and pulmonary veins [1]. The lesion is thought to represent a developmental abnormality of the foregut. It is most commonly found in the posterior basal segment of the left lower lobe [1, 2].

The lesion may be found on a routine chest X-ray. Symptoms, when present, are chronic cough, expectoration and recurrent pneumonia. The diagnosis is dependent upon the demonstration of the aberrant systemic arterial supply, which is achieved by aortography. Occasionally, as in this case, CT scanning may demonstrate this feature [3]. Plain radiology and bronchoscopy seldom provide a definitive diagnosis. Treatment is surgical and usually takes the form of a lobectomy. Resection should be considered even in the absence of symptoms as there is a possibility of infection as well as of haemorrhage caused by arteriovenous anastomosis. Furthermore, the occurrence of fungal infection, tuberculosis and tumours within sequestered segments has been reported [4].

Non-tuberculous psoas abscess has many causes, one of the commonest being extension from diseased bowel. Pulmonary causes include empyema and lung abscess [5]. No report of a psoas abscess being directly related to an intralobar pulmonary sequestration could be found.

Acknowledgements: The authors wish to thank M. Mahoney for allowing us to report this case, and H. Blythe for preparing the manuscript.

References
