Intraosseous Angiolipoma of the Rib

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Received: 28 April 2014 / Accepted: 13 July 2014 / Published online: 22 July 2014
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Abstract Angiolipomas are a subgroup of lipomas and are rarely observed benign tumours in which mature fat tissue and angiomatous elements exist jointly. Costa-induced angiolipomas are rarer. A male patient aged 46 years consulted our clinic due to severe pain in his left side. The patient's X-ray showed a lobulated area with increased density (bone mass) in the left upper zone of the lung. A lesion in the fourth rib was excised with a left thoracotomy. Pathological diagnosis was reported as angiolipoma.

Keywords Angiolipoma · Rib · Pathology

A male patient aged 46 years consulted our clinic due to severe pain in his left side. The patient's X-ray showed a lobulated area with increased density (bone mass) in the left upper zone of the lung, which was smooth in the inferior area, had ambiguous borders in superior area, and whose borders could not be separated from the first rib of the anterior bow

Fig. 1 Lesion view in the posterior/anterior graph (arrows)

This study was presented as a poster presentation at the Annual Meeting of the Asian Society for Cardiovascular and Thoracic Surgery, Istanbul 2014.

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Fig. 2 Lesion view in computed tomography image and its histopathology; *arrows* indicate blood vessels and *asterisks* indicate fat tissue. Haematopoietic cells and inflammation are observed in the medullar cavity (H&E $\times 200$)

and the fourth rib of the posterior bow (Fig. 1). A computed thorax tomography determined a bony septum in the expansile lobulated lesions with fat density in the fourth rib posterior division of 80×45 mm size, which extended to the costovertebral area (Fig. 2). The lesions in the fourth rib were excised with a left thoracotomy. Pathological diagnosis was reported as an angiolipoma (Fig. 2). The patient was followed up for 1 year with no events occurring during this time.

Even though lipomas are usually soft tissue tumours, they are rarely observed in bones. Four types of lipomatosis lesions have been found in bones, and they are defined as follows: (i) extraosseous lipomas, which are found in soft tissues and located in the extra-periosteum area; (ii) intraosseous lipomas, which are found in the medulla; (iii) primary osseous lipomas, which are found in the periosteal membrane or cortex; and (iv) liposarcoma, a malignant disease formed by atypical lipoblasts and found in the bone marrow [1]. Bone-based lipomas constitute approximately 0.1 % of primary bone tumours [2].

Angiolipomas are a subgroup of lipomas and are rarely observed benign tumours in which mature fat tissue and

angiomatous elements exist jointly [3]. Costa-induced angiolipomas are rarer. Even though an exact diagnosis can be made through histopathology, typical tomography and magnetic resonance screening findings are useful for angiolipomas [4] because they allow practitioners to detect asymptomatic lesions. Asymptomatic lesions can be followed. Surgery may be needed due to malignancy suspicion, pathologic fractures, and pains.

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