Chest Wall Angiolipoma Complicating Von Recklinghausen Disease

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We present the case of an 18-year-old man with chest wall angiolipoma and a medical history of von Recklinghausen neurofibromatosis. The chest wall tumor was originally detected during an evaluation for chest pain. For diagnostic and therapeutic purposes, video-assisted thoracoscopic resection was performed, and the tumor was histopathologically confirmed to be an angiolipoma. Chest wall angiolipoma is exceptionally rare. Only two cases have been reported in the English literature, with no reports regarding chest wall angiolipoma in a patient with von Recklinghausen disease.

Angiolipoma is a variant of lipoma with a prominent vascular component and is the most common tumor of the trunk and extremities in the young [1]. Chest wall angiolipoma is quite rare, and, to the best of our knowledge, only two cases of chest wall angiolipoma have been reported [2, 3].

An 18-year-old man was referred to our department for a chest wall mass detected during an evaluation for sudden onset of vague chest pain. Aside from several skin nodules previously removed because of von Recklinghausen neurofibromatosis, the patient’s medical history was unremarkable. A thoracic computed tomographic (CT) scan showed a well-delineated nodule, which abutted the chest wall (Fig 1A). For diagnostic and therapeutic purposes, video-assisted thoracoscopic resection of the nodule was performed, with uneventful recovery. No invasion into the surrounding tissues was noted (Fig 1C). On gross inspection of the surgical specimen, the tumor was noted to be multilobulated and encapsulated (Fig 1B). Histopathologic examination of the specimen showed mature adipose tissue and numerous vascular elements with thrombi (Fig 1D).

Comment

Angiolipoma, a histologic variant of lipoma, is characterized by lobules of mature lipocytes and densely distributed networks of smaller and larger blood vessels. Other variants of lipoma are spindle cell lipoma, myelolipoma, chondrolipoma, and myxolipoma [4]. Angiolipoma commonly presents as painful nodules in the subcutaneous tissues of the extremities and trunk in young patients [5]. Only two cases of chest wall angiolipoma have been reported, including its first presentation in 1982 by Biondetti and colleagues [2, 3].

Angiolipoma can be divided into two subtypes: noninfiltrating and infiltrating [6]. The most common form, as in this case report, is noninfiltrating encapsulated angiolipoma. The less common variety of angiolipoma is termed infiltrating because it is noncapsulated and invades surrounding tissues [7].

The pathogenesis of angiolipoma remains to be elucidated. Trauma and increased familial occurrence have been suggested to be causative factors; however, these


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factors have not been validated [1]. In this case, chest wall angiolipoma complicated von Recklinghausen disease. The association between these two conditions remains unclear.

Preoperative diagnosis is very difficult, and surgical resection is suggested to be both therapeutic and diagnostic.

To summarize, chest wall angiolipoma is extremely rare. Considering the relevant reports of angiolipoma in other locations, surgical excision is the treatment of choice, although the number of cases of chest wall angiolipoma is too small to validate surgical intervention.

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References