CHONDROID HAMARTOMA AS AN UNCALACIDIED MASS AN UNUSUAL PRESENTATION

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INTRODUCTION

Chondroid hamartomas of the lungs are uncommon lesions which are usually solitary, small-sized, calcified and peripherally located. They are usually asymptomatic and are detected incidentally on chest X-ray or at autopsy. Rarely, they may be large in size and may clinically mimic malignancy[1,2]. They are rare benign lesions of the lung comprising 8% of all lung tumors[3]. Herein, we describe a case of pulmonary chondroid hamartoma presenting as an uncalcified mass which clinically mimicked bronchogenic carcinoma.

CASE REPORT

A 32 year-old male presented with a one year history of dry cough and chest pain which was increasing in severity and aggravated on deep inspiration. There was no history of fever, night sweats, smoking or weight loss. Chest X-ray and computerized tomography (CT) scan showed a well-defined uncalcified mass in the posterior segment of right upper lobe close to right hilum measuring 3 x 4 cm 2 in size (Fig. 1,2). Bronchoscopic examination and bronchoalveolar lavage were normal. With a clinical diagnosis of an indeterminate suspicious lesion right muscle sparing mini thorocotomy was performed. It revealed interfissure large haemartoma about 4 cm in size which was enucleated in toto. Histopathology revealed chondroid hamartoma with anthracotic pigmentation. Post operative recovery was uneventful with a follow up x-ray as figure 3.Gross specimen is shown as figure 4.

DISCUSSION

Pulmonary chondroid hamartoma was first described by Albrecht in 1904. It is also known as hamartochondroma, chondromatous hamartoma, adenochondroma, and mesenchymoma[4]. Chondroid hamartomas of lung are usually found in adults with a peak incidence in the sixth decade 5. There is a male preponderance, the male: female ratio being 2:1 to 3:1[5].

Chondroid hamartomas are usually solitary and well circumscribed, with maximum dimensions usually ranging from 1 to 4 cm with an average of 2 cm. Rarely, they may be of large size and sometimes they may be multiple 2,3. In the case presented above it was 4 cm in size. Depending upon the location in the lung, pulmonary chondroid hamartomas are of two types, peripheral parenchymal type and central endobronchial type. The former comprises over 90% of all chondroid hamartomas, arises from small bronchi and is generally asymptomatic4. The endobronchial type arises from large bronchi, is less frequent but is often associated with symptoms of obstruction[3].

Radiologically, chondroid hamartomas accounts for 7-14% of pulmonary coin lesions. Some cases show popcorn pattern of calcification. In the case presented above it presented as an uncalcified mass. Transthoracic FNAC can be used to establish the diagnosis in some cases[5,6]. The cytological diagnosis is based on the recognition of mesenchymal components characterized by fibromyxoid stroma and chondroid elements6. Chondroid hamartoma histologically consists of islands of cartilage, fat, fibromyxoid stroma, and narrow spaces lined by respiratory epithelium. The endobronchial type may contain a greater proportion of fat and less of epithelial lined spaces[4]. In recent times, the concept of chondroid hamartomas has been questioned as they are seen to be associated with abnormal karyotypes which point to a neoplastic nature[7]. Cytogenetic studies of chondroid hamartomas reveal a neoplastic transformation of primitive mesenchymal cells differentiated along chondroid, adipose, and smooth muscle

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pathways[8]. Recurrence of chondroid hamartoma is extremely unusual and malignant transformation is exceptional[9]. CT scan of the lesion is particularly useful because it may demonstrate focal area of fat or calcification which is virtually diagnostic of a haemartoma.[10]

In conclusion, Chondroid hamartoma is a rare benign lesion of the lung. Although an overwhelming majority is small, peripherally located, and asymptomatic, occasionally it may present as large hilar mass and clinically mimic malignancy. Surgical exploration can be considered for lesions which are equivocal to rule out malignancy.

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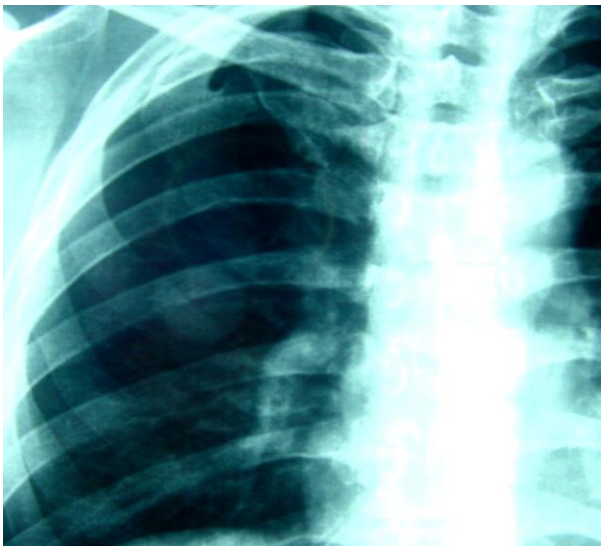

Figure 1. CXR PA view showing well defined soft tissue density opacity in right upper zone.

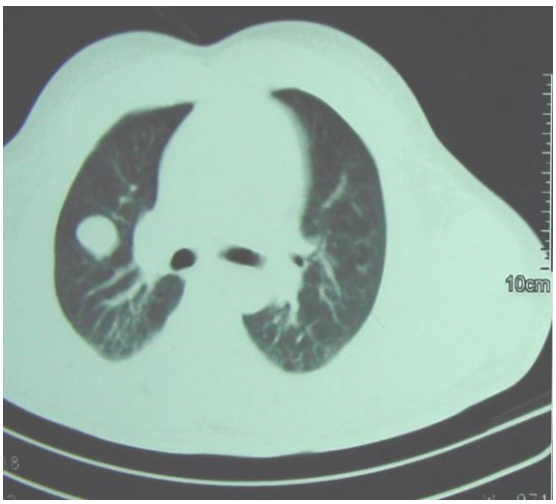

Figure 2. CT scan chest lung window showing an uncalcified mass in posterior segment of right upper lobe.

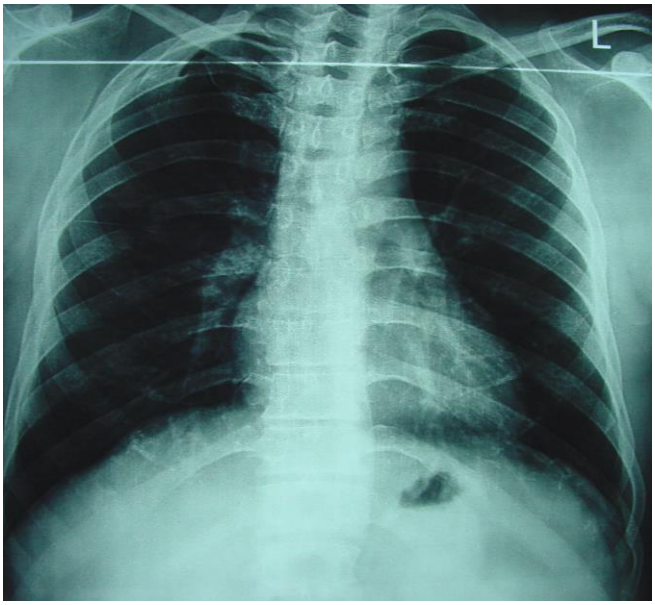

Figure 3. Post operative follow up CXR PA view

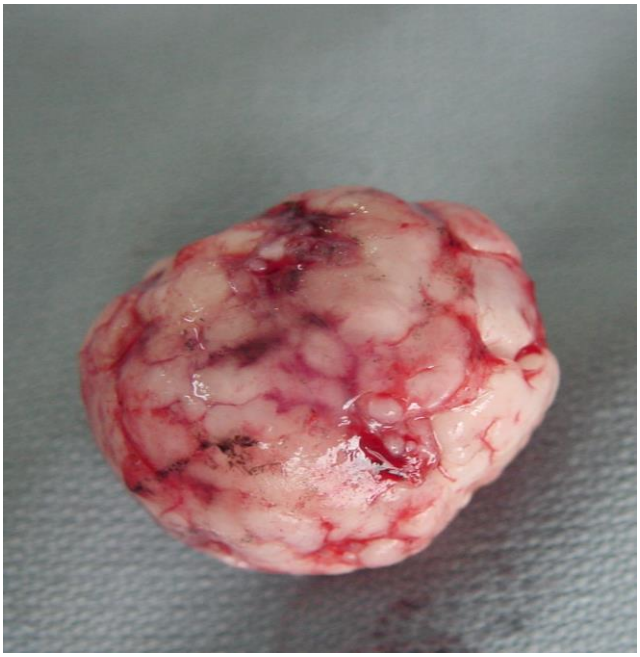

Figure 4. Tumour mass after removal