Mediastinal hamartoma - A rare presentation

Sir,

We report here a case of mediastinal hamartoma because of its extreme rarity. Only few cases of hamartoma in the mediastinum are reported in English literature. A 72 year-old male was referred to us for evaluation of an opacity in his chest radiograph. He had cough with expectoration for five days, which was diagnosed and treated as acute bronchitis. A chest x-ray was taken as part of the evaluation for cough, which showed an opacity in the mediastinum, with calcification [Figure 1]. He was a smoker with a smoking index of 240 and his past history was insignificant. At the time of presentation to our department he was asymptomatic. His respiratory system examination was normal. Computed tomography (CT) of his chest showed a well-defined lesion measuring 6.2 × 5.9 × 5.5 cm in the anterior mediastinum, with lobulated margins and a majority of the mass showing chunky calcification. There was a focal area of fat density within the lesion. A post-contrast study showed moderate contrast enhancement of the soft tissue component. The plane of the arch of the aorta was maintained and there was no chest wall invasion [Figure 2]. The lung fields were normal. A CT-guided needle aspiration was done and the cytology smears showed abundant chondromyxoid material admixed with clusters of bronchiolar epithelial cells [Figure 3]. Some of the clusters showed cells with anisonucleosis and large intranuclear cytoplasmic inclusions. Fragments of the hyaline cartilage were also noted [Figure 4]. Stromal fragments composed of spindly cells and macrophages were also seen. With these findings a diagnosis of chondroid hamartoma of the mediastinum was considered after radiological correlation. Hamartomas are benign tumors that are most often found in the liver and lungs.[1] It accounts for approximately 8% of all pulmonary neoplasms. Most hamartomas are located in the lung parenchyma and only a few are found in the bronchi.[2] Pulmonary hamartoma is a relatively common lesion that is usually discovered as an incidental, rounded focus of radio opacity on a routine chest film. Hamartoma occurring in the mediastinum is extremely rare. These are benign tumors with a peak

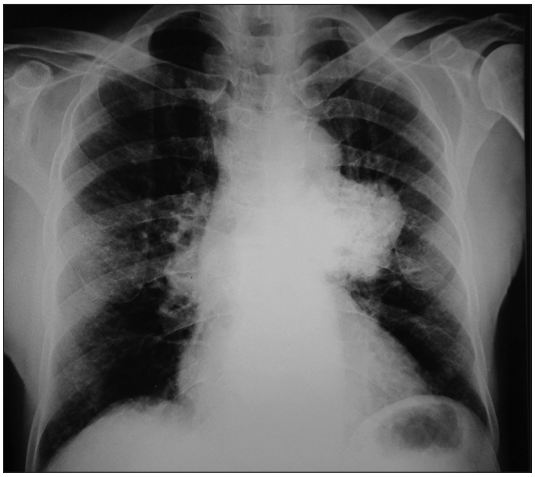

Figure 1: Chest x–ray, PA view, showing a mediastinal mass with calcification

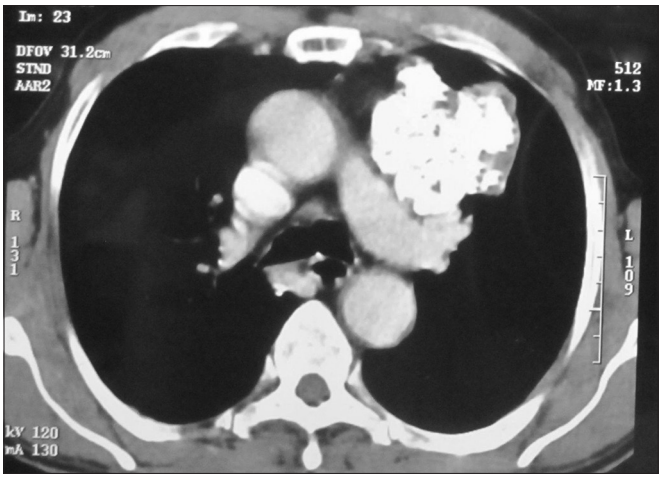

Figure 2: CT chest showing an anterior mediastinal mass with chunky calcification

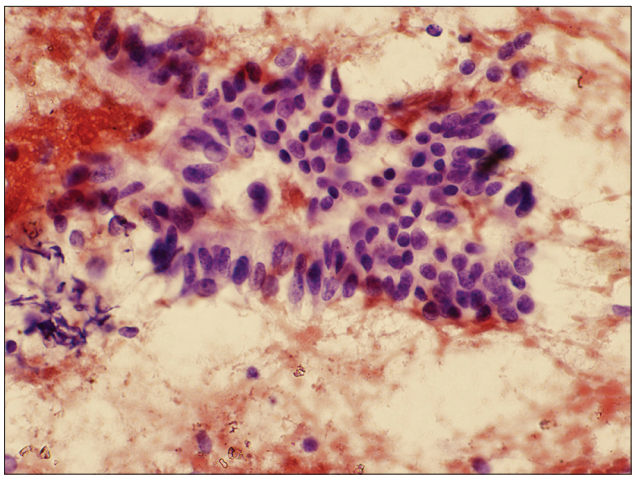

Figure 3: Bronchiolar epithelial cells (Pap x400)

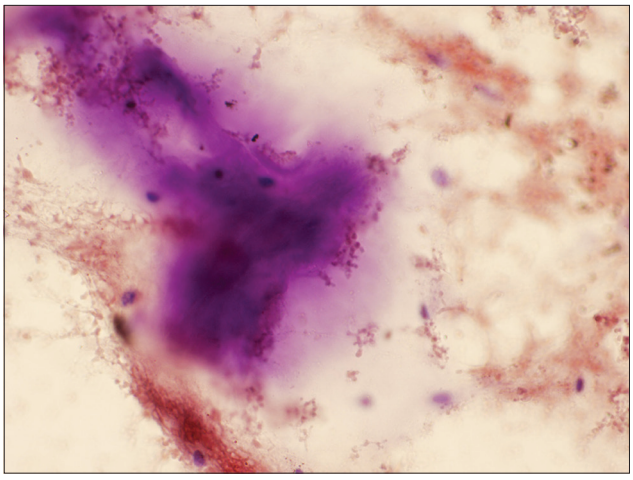

Figure 4: Fragments of chondromyxoid material (Pap x400)

incidence in the seventh decade of life and they are more common in males.[3] The most common location is the lung parenchyma, just beneath the pleura, and usually it is solitary, but can be multiple. Radiologically a characteristic popcorn pattern of calcification is seen in one-third of the cases.[4] There is clinical, morphological, and radiological evidence to suggest that this lesion is acquired and that it represents a primary overgrowth of mesenchymal tissues of the bronchial wall, with secondary entrapment of the bronchial epithelium in the more peripheral lesions.[5] Needle aspiration is appropriate in determining the diagnosis. In a series of 215 cases of pulmonary hamartoma reported from the Mayo Clinic none of them was located in the mediastinum.

Our patient was asymptomatic and the hamartoma was seen in the anterior mediastinum as an incidental finding. Surgical excision was not attempted owing to the benign nature of the lesion and also the patient and his relatives were not willing to get a surgical procedure done.

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DOI: 10.4103/0970-2113.168111