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A rare case of diffuse pulmonary ossification

A 45 year-old male patient presented to our clinic with chronic dyspnoea on exertion. He had no cough, fever or weight loss. He smoked tobacco for 2 months 25 years ago and had no significant occupational exposure. He had a chest radiograph 20 years ago following an episode of bronchitis, which reportedly showed “calcification of the lungs”. Chest auscultation revealed fine bibasilar crackles. He underwent a computed tomography (CT) scan of the chest, which showed diffuse calcified nodular lesions (figure 1a–c). Laboratory workup revealed normal calcium, phosphorus, vitamin D and parathyroid hormone levels. He underwent a lung biopsy by video-assisted thoracoscopy, which confirmed the presence of intraparenchymal bone tissue and fibrosis (figure 1d). A diagnosis of pulmonary ossification was made. A repeat CT scan of the chest, 1 year later, showed no progression of the disease.

Pulmonary ossification is a rare indolent disease, mostly diagnosed on autopsies [1]. It can be idiopathic, as in this case, or associated with underlying cardiac, pulmonary or systemic diseases. It is classified into dendriform and nodular based on radiological and pathological features. Pulmonary ossification is different from pulmonary calcification, which refers to deposition of calcium salts in lung tissue whereas ossification requires the demonstration of bone tissue with or without marrow elements [2]. No effective treatment has been described.

This case demonstrates the indolent and benign course of pulmonary ossification that, presumably, started 20 years ago when he had the abnormal chest radiograph. Unfortunately, we did not have access to his previous film to confirm this finding. We also suggest that typical radiological features may obviate the need for an invasive procedure to establish the diagnosis.

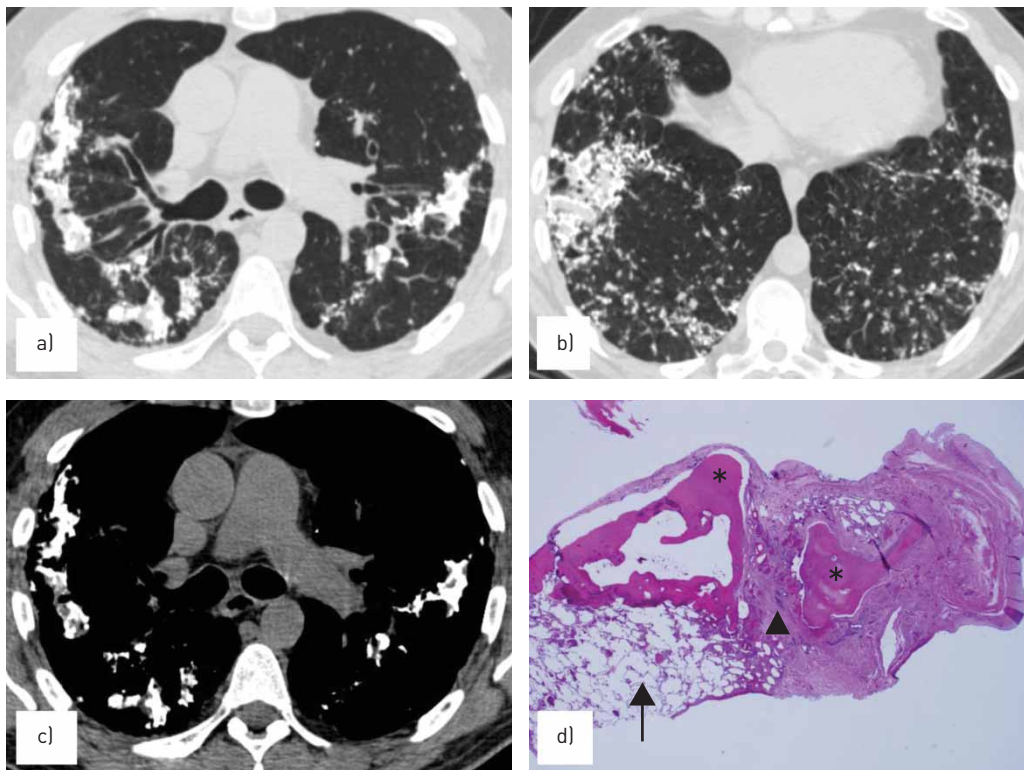


FIGURE 1. a, b) Computed tomography (CT) images of the chest showing diffuse nodular lesions that appear to be densely calcified. c) CT image with mediastinal window showing the lesions which have bone density. d) Video-assisted thoracoscopy lung biopsy showing spicules of bone (asterisk) with adjacent fibrosis (arrowhead) and normal appearing lung tissue (arrow).



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A case demonstrating the indolent and benign course of pulmonary ossification

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