

## Case Report

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# Pleural plaques

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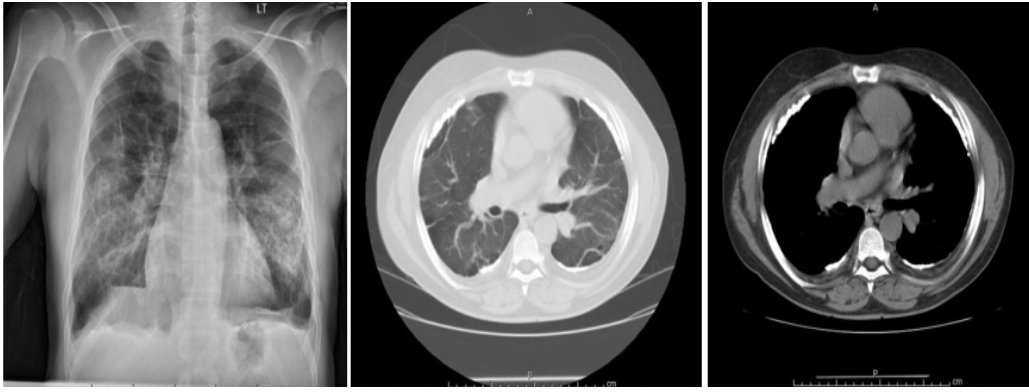
### Description

A 55-year-old male, with past history of COPD, presented with progressive shortness of breath of five days duration, associated with cough and increased sputum production. He had a 30 pack year smoking history and worked as a clerk in a plumbing store for two decades. On examination, he was afebrile, breathing at 20 /min with Oxygen saturation of 91% on 2 liters of oxygen. He was also tachycardic at 104 /min. Chest exam revealed fair air entry bilaterally with diffuse wheezing and a prolonged expiratory phase. Initial laboratory workup was within normal limits. His chest X-ray showed bilateral extensive opacity in the mid-lower zones, and hyperinflation. An axial CT scan was done (Figure 1).

### What is the diagnosis?

The CT scan of the chest showed bullous emphysema and bilateral calcified pleural plaques. Pleural plaques are the most

common pathologic pulmonary response to asbestos inhalation and often hallmark of the disease [1]. It affects approximately 50% of persons with heavy and prolonged exposure to asbestos and serves as evidence of asbestos inhalation. Plaques are usually symmetrical along the lateral chest wall and often not visible in Chest X-Ray, requiring CT scan [1]. This makes the above images unique in nature. Pleural Plaques are usually asymptomatic, but may lead to mild restrictive lung disease changes compared to those without pleural plaques yet exposed to asbestos. [2]. It is a benign finding that requires no treatment but several studies deem it as a risk factor for potential malignancy, making candidates with asbestos related pleural plaques, a high risk category for screening [3].



**Figure 1:** A postero-anterior chest radiograph showing extensive bilateral opacities in the mid-lower lung zones secondary to pleural plaques (left). Axial computed tomography showing bilateral pleural plaques, in lung window (center), and mediastinal window (right).

### References

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