Clinical Image

We report the case of a 56 year-old patient, with a history of leukemia under treatment, who presented to the emergency room with respiratory distress associated to hemoptysis, chest pain and dyspnea NYHA stage IV with a decreased oxygen level to 85% on room air, a CBC revealed a bicytopenia. Plain radiograph showed a bilateral, peri hilar and basal alveolar syndrome, comparable to that observed in pulmonary oedema and thoracic CT scan showed bilateral and symmetrical hilifugal central ground glass areas. Alveolar hemorrhage is defined as diffuse bleeding of pulmonary capillary in distal airspaces. Rapid diagnosis is required for an efficient therapeutical management of the hemorrhage and its cause. Imaging reveals bilateral areas of alveolar condensation and/or ground glass. Negative findings, such as the absence of pleural effusion, adenopathy, cardiomegaly and signs of pulmonary hypertension (Figures 1-2) are very crucial to the diagnosis of alveolar hemorrhage. The pink appearance with siderophagus in the bronchoalveolar lavage confirms the diagnosis.

The radiographic differential diagnosis arises with cardiogenic and lesional pulmonary oedema as well as certain diffuse infections, in particular Pneumocystis carinii pneumopathy in immunocompromised subjects.

Figure 1: Chest X-ray showing bilateral interstitial syndrome.

Figure 2: Chest CT axial (A) and coronal (B) section images revealing bilateral, flaky, centrally distributed ground glass foci sparing the sub pleural space in favor of alveolar hemorrhage.

Keywords: Hemoptysis; bicytopenia; CT scan; frosted glass.