Diffuse alveolar hemorrhage due to primary pulmonary angiosarcoma

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Introduction
Diffuse pulmonary hemorrhage (DAH) is a serious condition characterized by widespread intra-alveolar hemorrhage that originates from the pulmonary microcirculation. We report a case with DAH due to primary pulmonary angiosarcoma.

Case Presentation
An 82-year-old woman with a history of hypertension presented with dyspnea and hemoptysis for 3 days. On examination, the blood pressure was 116/64 mmHg, pulse rate was 112 beats per minute, respiratory rate was 20 breaths per minute, body temperature was 36.9°C, and SpO2 was 89% on breathing ambient room air. Inspiratory rales were heard at both lung bases. Laboratory findings revealed a WBC count of 35700/μl, a hemoglobin level of 6.1g/dl, a platelet count of 25000/μl, CRP of 4.83mg/dl. Liver and renal function test was normal. Immunologic examinations were all within normal limits. A CT scan of the chest showed bilateral pulmonary consolidation, especially in both lung bases. Because we considered pneumonia or vasculitis as a cause of pulmonary hemorrhage at first, Antibacterial drug treatment, steroid pulse therapy and plasma apheresis were given. However, the hemoptysis did not improve, and she died on the 12th hospital day. The pathological anatomy revealed primary pulmonary angiosarcoma.

Discussion
DAH is histologically divided into three types: pulmonary capillaritis, bland pulmonary hemorrhage, and diffuse alveolar damage. Moreover, etiologies of DAH are various such as following, vasculitis, immunologic, coagulation disorders, idiopathic pulmonary hemosiderosis, infiltrative lung diseases, and others. DAH is a medical emergency that often results in death, therefore the underlying cause must be determined.

Angiosarcoma is a rare soft-tissue sarcoma of endothelial cell origin that has a poor prognosis. Although angiosarcoma can arise in any soft-tissue structure or viscera, lung origin is rare.

If the cause of DAH is unidentified, we should consider the possibility of angiosarcoma.