To the Editor: A 65-year-old female patient presented with the complaints of hemoptysis and the left upper chest pain for about 1 week. The medical history revealed coronary heart disease and paroxysmal atrial fibrillation, smoking for about 40 years, no drinking, and no special contact history. There was a prior history of chronic cough without dyspnea or hemoptysis for about 20 years. Physical examination revealed a well-developed, well-nourished female in no apparent distress. The patient was afebrile with a heart rate of 78 beats/min, blood pressure of 130/70 mmHg, respiratory rate of 18 breaths/min, and oxygen saturation of 100% at room air. There was no peripheral lymphadenopathy. Chest auscultation was slightly diminished, breath sounds were heard at the left upper lung, and neither wet nor dry rale was heard in both lungs.

Chest computed tomography (CT) showed [Figure 1a] a large thin-walled cystic lesion in the left upper lung filed with a globular content and ground glass opacity surrounding the cystic lesion. A prone position chest CT examination performed later showed [Figure 1b] the globular content moved by the force of gravity. Bronchoscope suggested an inflammation of the bronchus. The bronchoalveolar lavage fluid cultured for bacteriology found no etiology. Both G-test and GM-test were negative. Because of the chest CT presentation, pulmonary aspergilloma was highly suspected and voriconazole was used for the treatment.

After 10 days of the treatment, chest CT was re-examined [Figure 1c], the imaging showed that ground glass opacity surrounding the cystic lesion had improved, and the thin-walled cystic lesion with a globular content existed as was before. According to the clinical presentation, the patient was diagnosed as having pulmonary aspergilloma. Then, surgical treatment was performed for the patient; the pathology showed [Figure 1d] cystic lung bronchiectasis with hemorrhage, proliferation of granulation tissue and fibrous tissue, and epithelial tissue of the cyst wall scales with atypical hyperplasia (d). The arrows show the vessel dilated and full of blood cells; the arrow shows the epithelial of alveolar hyperplasia or squamous metaplasia (d).

Bronchiectasis is one of the pulmonary inflammation diseases, typically presents with chronic cough, suppurative sputum production, and airway dilation. Chest high-resolution CT is the current diagnostic gold standard of bronchiectasis.[1] Cystic bronchiectasis appears ballooned or cystic or saccular airways, often exceeding 2 cm in diameter. The cysts often appear isolated and are not associated with other abnormal airways; occasionally, cysts may be seen in a subpleural location.[1] Pulmonary aspergilloma is a fungal ball infected with aspergillus, the patients who suffered from this disease have the symptoms of hemoptysis, chest pain, constant cough, and purulent sputum.

**Figure 1:** Computed tomography imaging showing globular content moved by the position moved from supine (a) to prone (b). After 10 days of antifungal therapy, the inflammation around the lesion disappeared, and the thin walled cystic lesion with a globular content remained (c). The arrows show the vessel dilated and full of blood cells (d); the arrow shows the epithelial of alveolar hyperplasia or squamous metaplasia (d).

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fever, etc. Pulmonary aspergilloma is usually located in the upper lobes and it develops in the pre-existing cavities which has a direct communication to a bronchiole, usually sequels of tuberculosis, bullous emphysema, cysts, or cancer.\[^{3,4}\] The radiological signs include air crescent sign and finger-in-glove appearance and movement of the fungus ball within the cavity when comparing upright and decubitus, which strongly suggested the diagnosis of pulmonary aspergilloma.\[^{5}\] The “ball-in-hole” aspect was found in our patients, but, if observed closely, we can discover that the shape of the ball in the cavity was different between the supine and prone positions. The blood ball was softer than the fungus ball.

To conclude, we present a case of hemorrhage in cystic bronchiectasis, which was misdiagnosed as pulmonary aspergilloma. The “moved ball-in-hole” was diagnosed as pulmonary aspergilloma normally. In the differential diagnosis, clinicians should be alert to the possibility of other diseases.

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Conflicts of interest
There are no conflicts of interest.

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