



## Clinical Image

High-Attenuation Mucus in Allergic Bronchopulmonary Aspergillosis<sup>☆</sup>

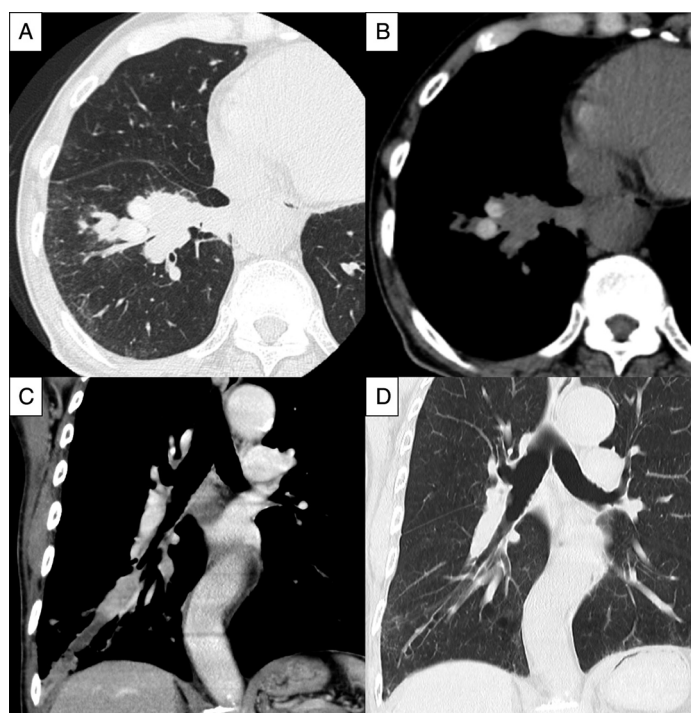
## Mucus de alta atenuación en aspergilosis broncopulmonar alérgica

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A 79-year-old man with chronic obstructive pulmonary disease underwent laparoscopic nephrectomy for the treatment of clear cell renal cell carcinoma (T1bN0M0). Eight months later, follow-up CT revealed bronchial cast shadows with high-attenuation lesions in the right lower lobe (Fig. 1A–C). We suspected

endobronchial metastasis from renal cell carcinoma and performed repeated fiberoptic bronchoscopy to collect biopsy specimens. Although there were no malignant cells, mucus plugs showing Charcot–Leyden crystals and *Aspergillus* were found. Furthermore, total and *Aspergillus*-specific IgE levels were elevated. *Aspergillus*



**Fig. 1.** High-resolution CT of the chest showing mucus plugging of dilated bronchi (A, lung window) and high-attenuation lesions (B, mediastinal window) in the right lower lobe. Coronal view CT with intravenous contrast revealed partially high-attenuation mucus plugs (C). Follow-up CT showed improvement of mucus plugging and presence of bronchiectasis (D).

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*fumigatus* skin test and precipitins were also positive. The patient denied episodic cough and wheeze, and lung function tests revealed irreversible airflow limitation after bronchodilator treatment. Allergic bronchopulmonary aspergillosis (ABPA) without clinical asthma was thus diagnosed. After steroid therapy, muroid impaction improved, although bronchiectasis persisted (Fig. 1D).

The differential diagnosis of muroid impaction includes endobronchial malignancy, foreign body aspiration, bronchial atresia, and bronchiectasis due to any cause. It is generally hypodense, but, in ABPA, mucus can be hyperdense on CT.<sup>1</sup> High-attenuation mucus, which is a term applied to mucus plugs that are visually denser than paraspinal skeletal muscle, is a characteristic finding in ABPA and is considered diagnostically significant.<sup>2</sup>

In our case, in which the patient had no clinical manifestation of asthma, the presence of high-attenuation mucus was particularly useful in differential diagnosis.

### Conflict of Interest

The authors declare no conflict of interest associated with this manuscript.

### References

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