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Clinical Image

# High Resolution Computed Tomography and Fiberoptic Bronchoscopy in the Study of Severe Asthma☆

## La tomografía computarizada de alta resolución y la fibrobroncoscopia en el estudio del asma grave

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We report the case of a 73-year-old woman who in 2012 developed a clinical picture of dyspnea on exertion, wheezing, and repeated episodes of acute bronchitis. Forced spirometry was performed, showing FVC: 1.58 l (62%), $FEV_1$: 1.17 l (64%), $FEV_1$/FVC: 0.73, with significant FVC changes on bronchodilator challenge. The chest X-ray showed no pathological findings. A diagnosis of asthma was given, and treatment with inhaled corticosteroids began with little clinical response.

The patient was referred to a pulmonologist in 2016 with a probable diagnosis of severe asthma, and forced spirometry was repeated, showing FVC: 1.54 l (61%), $FEV_1$: 1.04 l (57%), $FEV_1$/FVC: 0.67. In view of these findings, high-resolution computed tomography (HRCT) of the chest was performed, revealing an image of calcium density in the bronchus of the right lower lobe with small distal atelectasis. Fiberoptic bronchoscopy confirmed the presence of a foreign body that could be extracted with forceps, despite significant inflammation of the adjacent bronchial mucosa. The patient was unable to remember any episode of aspiration that could be related. The pathology laboratory reported that the sample was consistent with a fragment of bony tissue (Fig. 1). After extraction, the patient's previous clinical symptoms resolved.

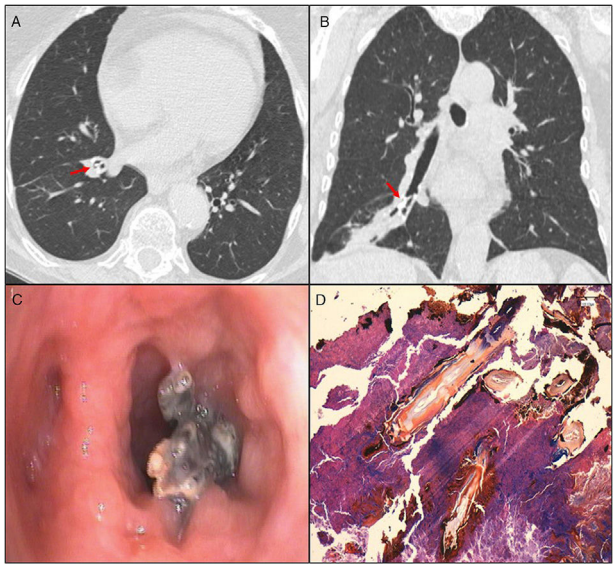


**Fig. 1.** (A) Chest HRCT, axial slice: image of calcification in the righter lower lobe. (B) Chest HRCT, coronal slice. (C) Bronchoscopy image of foreign body. (D) Pathology image consistent with bone tissue.

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