



Clinical Image

Congenital Bronchial Webs Mimicking Difficult-to-Treat Asthma

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Redes bronquiales congénitas que imitan el asma difícil de tratar

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A 16-year-old boy is presented with a history of persistent chest tightness, wheezing, and progressive worsening of shortness of breath. Asthma was diagnosed two years ago and had several hospitalizations due to shortness of breath despite the use of fluticasone 500 mcg/salmeterol 50 mcg combination, two puffs t.i.d. plus montelukast at 10 mg/day, and oral steroids (20 mg/day of prednisolone). Spirometry showed an obstructive pattern without reversibility after the bronchodilator. A multidetector computed tomography-

generated virtual bronchoscopy informed the striking absence of branching in a few endoluminal views of the bronchial tree (Figure 1a). Bronchoscopy revealed multiple translucent webs occluding (partially or totally) several subsegments of the airways. A diagnosis of congenital bronchial webs was done.

Most of the time, bronchial webs are acquired, and there is a history of trauma, infections, chemical inhalation,

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Figure 1: Absence of branching in right lateral basal segment (RB9) and normal right posterior basal segment (RB10) as seen in virtual bronchoscopy (CT scan) (a); Translucent membranes occluding subsegments (left images) were disrupted by electrocautery applied by fiberbronchoscope (right images) allowing clinical improvement (b).

cryoglobulinemia, foreign body aspiration, and even lung transplantation. In this report, there is no such history, so the disease was categorized as congenital, also ruling out any neonatal events. A recent review cites only 14 cases until 2023 and just three congenital cases [1].

Several complications are described: atelectasis, hyperinflation, and bronchiectasis, with various degrees of dyspnea, wheezing, and exercise intolerance. Because of this, early diagnosis is necessary, and flexible bronchoscopy plays a fundamental role [2].

The electrocautery applied by the fiber bronchoscope allowed the disruption of the membranes (Figure 1b), resulting in a substantial clinical improvement until 24 months of follow-up, showing normal spirometric values until then. The therapeutic approach is almost exclusively endoscopic, and various techniques can be used, such as laser, argon-plasma, balloon dilation, needles, and even a combination of these techniques [3].

This rare case reminds us of Chevalier Jackson's famous quote: "all that wheezes is not asthma." Keeping this phrase

in mind could alert us to look for other alternative diagnoses when the medications "rarely" do not work.

1. CONFLICT OF INTERESTS

The authors have no conflict of interest to declare. The authors declared that this study has received no financial support.

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