Research Article

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Accessory Cardiac Bronchus and Cervical Rib

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1. Keywords:
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2. Clinical Case

We present a 70-year-old male, former smoker of 68 pack-years, without any other relevant personal or surgical history, nor any known allergies. He worked as a banana tree farmer. He came to our Pneumology Office due to a month-long history of fever, arthralgia, myalgia, mouth ulcers, cough and expectoration (which was hemoptoic for 10 days), asthenia, hyporexia and a 10 kg weight loss. Physical examination revealed a left supraclavicular mass. Blood analysis showed leukopenia (total leukocytes 2,6 x 10^3/µl), thrombopenia (116 x 10^3/µl) and a slight elevation of GPT and GGT. Coagulation study and arterial blood gas analysis were normal, and the sputum studies were negative for acid-fast bacilli (AFB) with growth of oropharyngeal flora, and the initial respiratory serology was negative. In the chest X-Ray, we observed a left cervical rib, the rest were normal (figure 1A).

A video bronchoscopy was performed, in which we found diffuse signs of bronchitis and the presence of an accessory bronchus on the medial side of the right main bronchus. It ended in a cul-de-sac with a minimal distal lumen where the bronchoscope could not progress any further. Biopsies were performed and reported as normal bronchial mucosa. Cytology and AFB of the aspirate were negative. A chest High Resolution Computed Tomography (HRCT) was also performed where a bronchial division was observed in the right main bronchus, with a bronchus directed medially and caudally, with a small area of lung parenchyma (figure 1B). Lung function parameters were normal, as well as recent blood analysis which showed that the number of leukocytes, platelets and transaminases had normalized. A second serology showed seroconversion for Mycoplasma pneumoniae. Furthermore, the patient was asymptomatic and had regained weight.

3. Commentary

The most frequent infections caused by Mycoplasma pneumoniae are those of the respiratory tract [1]. The case we described is compatible with a Mycoplasma infection; what came to our attention were the incidental findings discovered during the study. Mycoplasma pneumoniae infections are characterized by the appearance of general symptoms followed by respiratory symptoms, frequently associated with extrapulmonary manifestations. Liver function is often affected, observing a slight elevation of transaminases, there may be leukopenia and, less frequently, thrombopenia and dermatological manifestations. The diagnosis is mainly performed by serologic testing, by detecting a quadruple or higher increase in the antibody titer against Mycoplasma pneumoniae in serum, as occurred in our case [1]. The supraclavicular mass that was present was due to the existence of a left cervical rib, which had not been diagnosed yet and had not caused any symptoms. Cervical ribs can be seen in 1.5% of chest X-Rays, they are generally bilateral and asymmetrical in 50% of cases. Although they can sometimes cause symptoms due to compression of the subclavian artery or brachial plexus, majority of cases are asymptomatic [2,3]. In this case, it was unilateral and underdeveloped (figure 1A).

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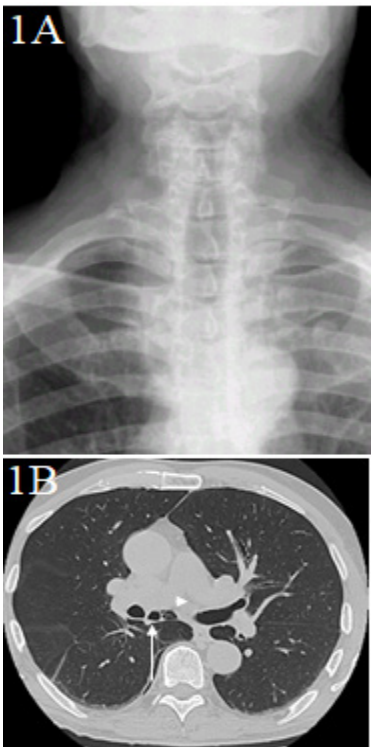

Figure 1: A. Left cervical rib. B. Accessory cardiac bronchus (the arrow) with a small area of lung parenchyma (the head arrow).

During the video bronchoscopy, the presence of an accessory bronchus was observed in an unusual location. It ended in a cul-de-sac with a narrow lumen which prevented the bronchoscope from progressing any further. HRCT also confirmed there was a small area of lung parenchyma which appeared radiologically normal (Figure 1B). This anomaly is known as accessory cardiac bronchus and it may end in a blind cul-de-sac or be associated with a small area of lung tissue, as it was in our case. Its frequency is estimated at 0.08% and it is generally a casual finding, although in some cases it can be a reservoir for infectious microorganisms, causing cough, hemoptysis or recurrent pneumonia [4-8]. Exceptionally, a case of squamous cell carcinoma originating in this accessory bronchus has been described [9]. Some variations in the normal branching pattern of the tracheobronchial tree can be associated with anomalies in other organs or tissues. However, in the review carried out in Medline we have not found this association described previously, which is why we believe it to be of interest.

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