Pertussis in Adults: A Growing Diagnosis in the Pulmonology Clinic

José Inés Bónez

Table 1 Causes of Chronic Cough.

<table>
<thead>
<tr>
<th>Common causes</th>
<th>Uncommon causes</th>
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<tbody>
<tr>
<td>– Post-nasal drip (8%–87%)</td>
<td>– Psychogenic cough</td>
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<td>– Asthma (20%–33%)</td>
<td>– Occult lung infection</td>
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<td>– Gastroesophageal reflux (10%–21%)</td>
<td>– Immunological diseases: temporal arteritis, Sjögren’s syndrome, etc.</td>
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<td>– Eosinophilic bronchitis (13%)</td>
<td>– Left heart failure</td>
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<td>– Chronic bronchitis and COPD (5%)</td>
<td>– Mass or aspirated foreign body</td>
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<td>– Bronchiectasis (4%)</td>
<td>– “Bronchitis” due to toxic occupational exposure</td>
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<td>– Lung cancer (25%)</td>
<td>– Nasal polyposis, Rhinoliths</td>
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<td>– Medications: ACE inhibitors (0.2%–32%), and others</td>
<td>– Occipital neuralgia</td>
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<tr>
<td>– Postinfectious cough (11%–25%); virus, Mycoplasma pneumoniae, Chlamydia pneumoniae and Bordetella pertussis</td>
<td>– Tracheobronchomalacia</td>
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</table>

Reference:


Conflict of Interests

The authors state that they have no conflict of interests.

References


Pertussis is a highly contagious acute respiratory infection of the upper respiratory tract caused by the bacteria *Bordetella pertussis*. It is characterized by episodes of highly limiting violent coughing, occasionally accompanied by whooping on inspiration. Humans are the only known reservoir of infection and the mechanism of transmission is direct contact with secretions from infected respiratory mucosa. After incubation (7–10 days) and a catarrhal period with non-specific symptoms (1–2 weeks), the paroxysmal phase begins (2–4 weeks) with convulsive cough followed by deep inspiration against a closed glottis at the end of the paroxysm, which produces the typical whoop. It gradually resolves after 3 months, but the incidence of residual cough in adults can be as high as 50%. In these patients, clinical symptoms are more latent: cough is severe and prolonged, mainly at night, and less paroxysmal than in children, which contributes to underdiagnosis. In our case, the diagnostic delay was considerable: asthma was suspected and the patient even received treatment with oral corticosteroids. It is our opinion, then, that pulmonologists should not overlook pertussis in patients with persistent cough. Once suspected, diagnosis is simple.
Nasopharyngeal culture is the most specific technique, but sensitivity is low (50%–70%) so other molecular biology techniques that also offer the possibility of rapid diagnosis are recommended for achieving greater sensitivity (70%–99%).

References

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Conservative Approach in Bronchial Artery Aneurysm Rupture: A Therapeutic Option

El abordaje conservador para la rotura de un aneurisma en la arteria bronquial: una opción terapéutica

To the Editor:

Bronchial artery aneurysm (BAA), corresponding to a vascular caliber greater than 2 mm, has been reported in only 50 cases in the literature to date. Mizuguchi et al. mention that only 12 BAA ruptures were described in England before 2009. The ideal approach in this situation remains controversial. A minimally invasive endovascular embolization technique showed greater efficacy and safety than thoracotomy, but with a conservative approach, clinical stability of the patient can be maintained without increasing operative morbidity.

We present the case of a 75-year-old man admitted to the emergency department of our hospital with dyspnea, a single episode of hemoptysis and sudden pain in the right hemithorax. The patient had diabetes, hypertension, COPD and reported triple coronary by-pass in 2009. The chest X-ray showed right pleural effusion and the origin of the bleeding was determined with thoracentesis. The patient was hemodynamically stable (hemoglobin 10 g/dl, blood pressure 110/70 mmHg) but displayed slight hyperventilation with normal blood gases (SO₂, 95.2%; PO₂, 90.8 mmHg, and PCO₂ 24.1 mmHg) and sinus tachycardia (115–120 beats per minute) on ECG. Video-assisted thoracoscopy (VAT) was performed and 2000 cm³ of blood removed, although there was no evidence of any source of bleeding in the pleura, diaphragm or lung. The mediastinum appeared swollen, convex, congested and contained blood, as demonstrated by needle aspiration. Within 24 h of this minimally invasive method, three-dimensional thin-section computerized tomography (3D-TSCT) of the thorax showed a conspicuous hematoma in the posterior mediastinum, pulmonary artery ectasia, predominantly on the left (4.6 cm), and a right BAA (6 mm × 5 mm in diameter) in the area of the hematoma, that was most probably the site of the previous bleeding. On the basis of radiological assessment, we decided to avoid the surgical approach and opted for conservative treatment. Pleural drainage was discontinued on postoperative day 4 and the patient was discharged on day 6, following a repeat chest 3D-TSCT, which showed a drastic reduction of mediastinal hematoma. The follow-up with 3D-TSCT at 4 months and 1 and 2 years revealed resolution of the BAA and total resolution of hemomediatinum. Etiology of BAA can be attributed to increased blood flow, high pressure in the pulmonary artery or various lung diseases.

Fig. 1. The bronchial artery, originating from the convex surface of the aortic arch to the limit with descending aorta, displayed tortuous and hypertrophic aneurysm (arrow) in a wide hemomediatinum.

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