Two cases of Ortner’s Syndrome Associated with Secondary Pulmonary Hypertension and Ascending Aorta Aneurysm

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Abstract

Ortner’s syndrome is a rare disorder characterized by hoarseness resulting from left recurrent laryngeal nerve palsy. The original description of Ortner’s syndrome was in a patient with a markedly distended left atrium due to mitral stenosis. Other causes include aortic aneurysm, patent ductus arteriosus, atrial septal defect, pulmonary embolism, ventricular septal defect, and primary pulmonary hypertension.

Here we report two cases of cardiovocal paralysis. Ortner’s syndrome in the first case presented herein was caused by compression of the left recurrent laryngeal nerve due to an enlarged ascending aorta aneurysm and in the second case by an enlarged pulmonary artery. Our first patient had no dyspnea or limitation of daily activity and exhibited a silent clinical course associated with her primary disease. The second patient had only mild exertional dyspnea, which occurred months after the onset of hoarseness. Both patients had normal blood counts and biochemistries. These cases illustrate the fact that Ortner’s syndrome may occur in patients who are otherwise clinically asymptomatic and stress the importance of looking beyond the larynx in patients who present with hoarseness. We also show for the first time that Ortner’s syndrome may also be caused by secondary pulmonary hypertension due to chronic obstructive pulmonary disease.

Keywords: Ortner’s syndrome; Hoarseness; Cardiovocal syndrome, Recurrent laryngeal nerve palsy

Case 1

A 81 years old non-smoker female was admitted for hoarseness present for two months. The patient denied any accompanying symptoms. Past medical history revealed type II diabetes for six years and hypertension for three years. Blood count and chemistries were normal. ECG showed a sinus rhythm of 82/minute. Chest x-ray demonstrated an enlarged arcus aorta (Figure 1). Contrast enhanced computed tomography showed a 65 × 70 mm aneurysm arising from the arcus aorta (Figure 2). Indirect laryngoscopy revealed left vocal cord paralysis. A diagnosis of Ortner’s syndrome due to compression of the left recurrent laryngeal nerve by the enlarged ascending aorta was made.

Case 2

A 52 year old non-smoker female presented with progressive hoarseness of three months duration and mild exertional dyspnea for two weeks. The past medical history and the family history were unremarkable. Blood count and chemistries were normal. ECG demonstrated sinus tachycardia of 114/minute. Chest X-ray showed dilatation of the pulmonary arteries. Arterial blood gas on room air revealed a pH of 7.37, P02 of 57.8 mm Hg and PCO2 of 49.6 mm Hg. Computed tomography revealed an enlarged pulmonary conus (40 mm) (Figure 3), enlarged pulmonary arteries (35 mm) and centrilobular emphysema (Figure 4). Laryngoscopy demonstrated left vocal cord paralysis. A diagnosis of compression of the left recurrent laryngeal nerve by a dilated main pulmonary artery consistent with Ortner’s syndrome was made.

Discussion

Cardiovocal syndrome is a rare disorder originally described by Ortner in patients with an enlarged left atrium due to mitral stenosis [1]. The palsy arises from compression of the recurrent laryngeal nerve as it passes between the arcus aorta and the pulmonary artery. Following its first description, other cardiovascular
occurred months after the onset of hoarseness. The left recurrent laryngeal nerve was compressed by an enlarged ascending aorta in the first patient and by a dilated main pulmonary artery in the second. The finding of enlarged arteries by computed tomography in both patients led to a diagnosis of Ortner’s syndrome. Given the fact that the most frequent cause of the cardiovocal syndrome is due to cardiac or pulmonary disease [6-11], our cases emphasize the importance of thinking beyond the larynx in patients who present with a chief complaint of hoarseness. Clinicians should search beyond the larynx for the etiology of vocal cord palsy in patients presenting with hoarseness. The silent clinical profile of the primary disease may be deceptive and misleading for the final diagnosis of hoarseness.

Conflict of Interest

All the authors declared that they have no conflict of interest.

References


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