

Aortic Aneurysm as a Cause of Dysphonia in a Patient Who Smokes

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Vocal cord paralysis secondary to a cardiovascular disease is known as Cardiovascular or Ortner's syndrome. The most common cause of Ortner's syndrome is atrial dilation due to mitral valvulopathy. Other causes include aneurysms of the thoracic aorta, patent ductus arteriosus, aneurysm of the ductus arteriosus, defects of the interatrial or interventricular septum, among others. Hoarseness might be the only symptom that leads a given individual to consult with a physician. Here we present the case of a 77-year-old male patient with history of diabetes mellitus type 1 and hypertension, whose illness started about a year ago when he presented progressive dysphonia associated with dry cough after food intake without another concomitant symptom. CT studies reported the presence of an aortic aneurysm compressing the left recurrent nerve. Patient refused surgical treatment. As of this writing, he remains symptomatic. [*PR Health Sci J* 2020;39:229-231]

Key words: Cardiovascular syndrome, Tumor, Aorta

The Cardiovascular Syndrome or Ortner's Syndrome is an unusual pathology of cardiovascular origin which often manifests itself only with dysphonia. It was first described in 1897 by the Austrian physician Norbert Ortner in 3 patients with left atrial enlargement secondary to mitral valve stenosis. He attributed their symptomatology to compression of the left Recurrent Laryngeal Nerve by the enlarged cavity (RLN) (1). The causes of this syndrome include structural anomalies such as atrial enlargement and aortic aneurysms, the latter representing 5% of cases of Cardiovascular Syndrome (2). Here we present a case of Cardiovascular Syndrome, diagnosed in a 77-year-old patient, which required the realization of several imaging studies for its management.

Case Report

Our patient was a 77-year-old male with a history of type I diabetes mellitus and hypertension (treated with metformin and amlodipine). He was a smoker (5–7 cigarettes/week). His current illness had begun approximately a year prior to his presentation to our service and consisted of progressive dysphonia associated with a dry cough (after food intake) and with no other, concomitant symptoms. Patient is evaluated by Internal Medicine Service on July 24 of 2013. The patient was evaluated by the internal medicine service on July 24 of 2013. The patient was sent to ENT for a laryngoscopy, which was done on July 26 of 2013; paralysis of the left vocal fold was reported. Due to these findings, CT scans of the neck and chest were performed. A CT scan of the neck showed thickening of the left vocal cord. Chest tomography revealed an aneurysm at the level of the aortic arch that occupied the aortopulmonary window, reaching a diameter of approximately 52x54x46 mm in

the transverse, anterior–posterior, and longitudinal directions, respectively, protruding into the aortopulmonary window (Figure 1). In addition, an intramural thrombus was shown.

A cardiovascular surgery consultation was requested. The surgeons consulted ordered a thoracic angiotomography with 3D reconstruction and helical tomography (Figures 2 and 3). These studies confirmed the presence of an aneurysm arising from the arch of the aorta. Due to the patient's age and comorbid conditions, the surgeons decided that the best therapeutic option would be endovascular stenting.

Hypertension treatment was modified, and smoking cessation was advised by the cardiologist. The patient refused surgical treatment. As of this writing, he remains symptomatic.

Discussion

Vocal cord paralysis secondary to a cardiovascular disease is known as Cardiovascular or Ortner's syndrome. The most common cause of Ortner's syndrome is atrial dilation due to mitral valvulopathy. Other causes include aneurysms of the thoracic aorta, patent ductus arteriosus, aneurysm of the ductus arteriosus, defects of the interatrial or interventricular septum (3-6).

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Hoarseness might be the only symptom that leads a given individual to consult with a physician. Other symptoms include chest pain, wheezing, hemoptysis, and dyspnea. A study by Yuan reported dyspnea with or without hemoptysis

to be the most common symptom besides hoarseness (7). Our patient did not have any other complaints.

Cardiovascular syndrome can be diagnosed with imaging studies. Of the different methods that are available for making a diagnosis, Yuan reported that the CT scan was the most frequently used, followed by echocardiography and angiography. Most aneurysms tend to be a routine finding by a simple chest x-ray, until they become symptomatic due to rupture (2,7). Our patient denied having had chest pain or any other complaints related to a ruptured aneurysm. Echocardiography was not used due to institutional limitations.

These cases are often managed through surgery, either by an open-chest procedure or by endovascular stenting. Surgical management usually requires from 6 weeks to 6 months of recovery. It is important to note that

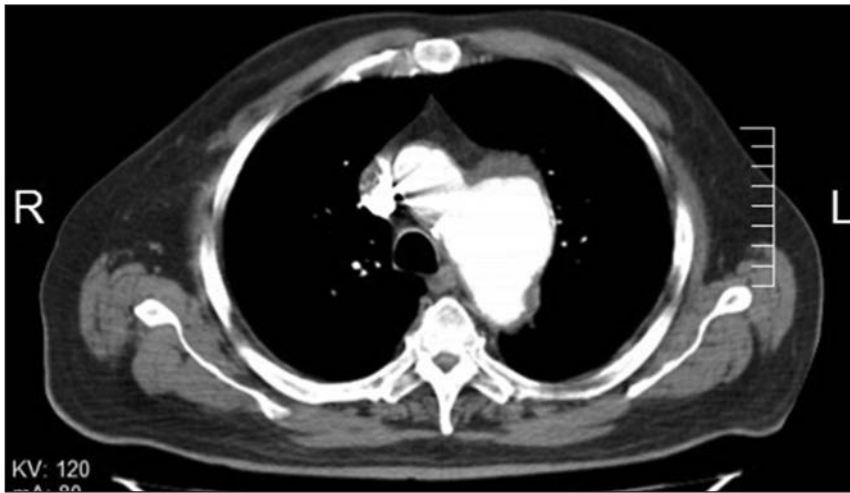


Figure 1. Contrast-enhanced chest tomography depicting an aortic aneurysm.



Figure 3. Three-dimensional reconstruct depicting an aortic aneurysm.



Figure 2. Three-dimensional reconstruction depicting an aortic aneurysm.

pharmacological treatment in patients with comorbidities such as hypertension, diabetes, and other medical conditions is crucial (8).

Resumen

La parálisis de cuerdas vocales secundaria a una enfermedad cardiovascular se conoce como Síndrome Cardiovocal o de Ortner. La causa más común del síndrome de Ortner es la dilatación auricular debido a valvulopatía mitral. Otras causas incluyen aneurismas de la aorta torácica, ductus arterioso permeable, aneurisma del conducto arterioso, defectos del tabique interauricular o interventricular, entre otros. Un cuadro de disfonía puede ser el único síntoma requerido para que el paciente busque una consulta con un médico. Aquí presentamos el caso de un paciente masculino de 77 años con antecedentes de diabetes mellitus tipo 1 e hipertensión, cuya enfermedad comenzó hace aproximadamente un año cuando presentó disfonía progresiva asociada a tos seca después de la ingesta de alimentos sin otro síntoma concomitante. Los estudios de TC informaron la presencia de un aneurisma aórtico que comprimía el nervio laríngeo recurrente izquierdo. El paciente rechazó el tratamiento quirúrgico. Permanece sintomático.

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