Dissecting Aortic Aneurysm Presenting with Cardiovocal Hoarseness

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Abstract
Cardiovascular hoarseness / Ortner’s syndrome is hoarseness of voice due to recurrent laryngeal nerve involvement in cardiovascular disease. Dissecting aortic aneurysm usually presents with chest pain or interscapular back pain or neurological symptoms. Neurological symptoms are due to neurological ischaemia secondary to either extension of dissection into a branch artery or compression of artery by false lumen of dissecting aortic haematoma. However painless aortic aneurysm presenting with isolated symptoms of hoarseness of voice is a rare presentation.

Introduction
Hoarseness of voice due to vocal cord palsy is common clinical occurrence and a variety of extralaryngeal diseases can affect recurrent laryngeal nerve and result in vocal cord palsy. Malignant neoplasm especially bronchogenic carcinoma has been reported as most common cause of extralaryngeal vocal cord palsy. Vocal cord palsy due to involvement of recurrent laryngeal nerve has been described in cardiovascular disease. Dissecting aortic aneurysm usually presents with chest or back pain or neurological symptoms. Painless aortic aneurysm presenting as hoarseness of voice is a rare presentation, hence this case is reported.

Clinical Summary
A 74-year old male presented with sole symptom of sudden onset of hoarseness of voice of 6 months duration. There was no history suggestive of any respiratory illness, sore throat, cardiovascular accident, neck surgery, trauma, intubation, exposure to dust, fire, smoke, irritant fumes, hypothyroidism, voice abuse, ischemic heart disease, and valvular heart disease. There was no relevant family history. Patient was chronic smoker and occasional alcoholic. Patient was known case of hypertension taking antihypertensive therapy. On physical examination patient was found to have hoarse voice but there was no stridor, goiter or cervical lymph node enlargement His blood pressure was 130/90 mmHg. The respiratory, cardiovascular and abdomen examination was within normal limits. Indirect laryngoscopy revealed left vocal cord palsy. Chest radiograph showed a left hilar opacity suggestive of mediastinal mass (Fig. 1).

Investigations
Laboratory investigations revealed hemoglobin of 11.0 gm%, total leukocyte count of 7000/cmm with 65% polymorphs, and fasting blood sugar 100 mg%. Serum lipid and thyroid profile was within normal limits. Sputum was negative for acid fast bacilli and malignant cells. VDRL test for syphilis was negative. Contrast enhanced computed tomography (CECT) scans of thorax showed aneurysmal dilatation of arch of aorta, measuring about 5.5 cm at maximum diameter. There was evidence of dissection into its wall with formation of an intramural haematoma containing thrombosed blood clot anteriorly (Figures 2, 3). Patient was diagnosed as a case of cardiovocal hoarseness secondary to dissecting aortic aneurysm (Ortner’s syndrome).

Discussion
Hoarseness of voice is a symptom of laryngeal diseases resulting from interference of normal opposition of vocal cords. It may be self-limiting as in case of upper respiratory infection or voice abuse. Persistent hoarseness beyond 3 weeks requires indirect laryngoscopy. Common causes of vocal cord paralysis...
in adults are malignant neoplasms (lung, esophagus, thyroid, lymphoma and metastatic), trauma, surgery (thyroid, radical neck and mediastinal), brain injuries, inflammatory conditions like tuberculosis and idiopathic. In this patient the bronchogenic carcinoma was suspected as the cause for vocal cord paralysis in view of the clinical presentation, age group, smoking status and a hilar mass on skiagram chest. However on CECT thorax there was no evidence of bronchial neoplasm or tubercular scarring but it revealed aneurysmal dilatation of arch of aorta with dissection into its wall.

Usually dissecting thoracic aortic aneurysm manifest with chest pain and back pain or stroke syndrome (neurological manifestations) if carotid arteries are involved and only 10% of dissecting thoracic aortic aneurysm are painless. The aneurysm may directly compress and cause injury of the left recurrent laryngeal nerve, manifesting as hoarseness of voice. However, hoarseness of voice, as the isolated presenting symptom of thoracic aortic aneurysm is rather rare entity.

Patients, who do not present with classical symptoms may be misdiagnosed or diagnosis may be delayed resulting in increased mortality and morbidity in these patients. So it is very important to keep in mind all clinical presentation of lesions in the aortopulmonary window and it is vitally important to differentiate between a neoplastic and a cardiovascular cause such as an aortic aneurysm so that unnecessary and inappropriate interventions can be avoided. A CECT scan provides an excellent diagnostic aid initially to evaluate these lesions before undertaking invasive procedures like bronchoscopy.

References

Announcement
Rheumatology C.M.E. 2009
Sunday, 6th September, 2009 at Lokmanya Tilak Municipal Medical College, Sion, Mumbai
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Announcement
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