Cardio-vocal syndrome

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DESCRIPTION
An 80-year-old man presented with a 3-month-history of hoarseness that developed gradually and remained with the same intensity afterwards.

He had neither a history of constitutional symptoms nor cardiorespiratory complaint. He worked as a farmer for 40 years and never smoked. He was taking atenolol 100 mg daily for hypertension.

He was initially referred to the otolaryngologist. On direct laryngoscopy, the movement of arytenoid cartilage and true vocal cord on the left side was impaired and no discrete mucosal lesion was seen. He was referred to the pulmonology clinic to undergo fiberoptic bronchoscopy as there was ground glass opacity over the lateral segment of the right middle lobe and suspicious lymph adenopathy in the aorto-pulmonary window.

He was hypertensive with right arm blood pressure of 170/110 mm Hg. Otherwise, the rest of the examination was normal. Bronchoscopic examination was deterred as thrombosed dissection of the aortic arch was the most probable diagnosis.

Figure 1  (A–D) Axial, coronal and sagittal sections of thoracic aorta angiogram show aortic atherosclerosis and mural thrombosis in dissected aortic arch extending to the descending aorta.
Therefore, he underwent angio-CT scan of the thoracic and abdominal aorta that showed mural thrombosis in the aortic arch extending to the descending aorta and consequent luminal irregularity and narrowing. There was also aneurysmal dilatation of the aorta from diaphragmatic hiatus to the origin of coeliac artery. The rest of the abdominal aorta was unaffected (figure 1A–D). He refused to undergo further intervention and preferred to be followed up as an outpatient.

Cardiovocal syndrome is characterised by left recurrent laryngeal nerve (LRLN) palsy due to a cardiovascular disease. A variety of cardiac diseases can cause LRLN palsy by compressing or stretching effects. For instance, the nerve may be entrapped between the left pulmonary artery and dissected aortic arch or may be injured by a slowly expanding aortic arch aneurysm. Cardiovocal syndrome must be considered in differential diagnosis of hoarseness.

**Learning points**

- Thrombosed aortic arch dissection must be considered in differential diagnosis of aorto-pulmonary window lymphadenopathy.
- Cardiovocal syndrome must be considered in evaluation of patients with hoarseness and risk factors of cardiovascular disease.

**Competing interests** None.

**Patient consent** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**REFERENCES**