# Bottom of an iceberg: undiagnosed aortic aneurysm masquerading as vocal cord palsy

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#### DESCRIPTION

A previously healthy woman aged 60 years was referred to a tertiary referral cancer centre with change of voice for 1 week suspecting neoplastic aetiology on account of her tobacco chewing habit of more than 20 years. No history of voice abuse, fever or cough was there preceding the onset of the change of voice. She did not have any previous history of hospitalisation or diagnosed comorbidities. On clinical examination, her pulse rate was 82 bpm; blood pressure was 130/90 mm Hg and respiratory rate was 12/min.

Video laryngoscopy examination revealed left vocal cord palsy with no obvious lesion. A whole-body F18 FDG PET–CT scan revealed the presence of 6.6×4.8×6.7 cm lobulated sacullar aneurysm arising from the aortic arch between the origins of the left common carotid and subclavian arteries



**Figure 1** PET–CT image (axial cut) of the chest showing large lobulated sacullar aneurysm arising from the aortic arch between the origins of the left common carotid and subclavian arteries, measuring  $\sim 6.6 \times 4.8$  cm in transaxial dimensions and 6.7 cm craniocaudally. The anatomical location of the aneurysm corresponds to that of the left recurrent laryngeal nerve.





**Figure 2** Contrast-enhanced CT image (axial cut) of the chest showing the aortic aneurysm causing compression of the proximal carotid artery.



**Figure 3** CT and PET–CT images (saggital and coronal cut) of the chest showing the presence of an eccentric thrombus of maximum thickness of 2.6 cm around the aortic aneurysm causing compression of the thoracic trachea and proximal oesophagus.

(figures 1 and 2). The likely mycotic aneurysm caused significant surrounding metabolically active inflammatory changes (figure 3). The cause of left vocal cord palsy was due to compression of the left recurrent laryngeal nerve.

More often than not such 'common presentations' of uncommon yet sinister causes are missed subjecting the patients to undergo myriads of tests, thus delaying definitive management. <sup>1–3</sup>

## **Learning points**

- ➤ Considering the tobacco consumption history, advanced age and change in voice, the patient was referred to an oncology centre. However, this case of vocal cord palsy highlights the point that the oncologists should have a high index of suspicion regarding other possible benign aetiologies while evaluating such cases.
- ▶ Uncommon cases like aortic aneurysm can masquerade themselves to a commoner clinical presentation like vocal cord palsy and might get misdiagnosed delaying the treatment.<sup>1</sup> <sup>2</sup>
- ► The imaging modality of choice in such cases of vocal cord palsy without any evident lesion in endoscopy should extend from the skull base to thorax. Without prior evaluation of the thorax, subjecting these patients to more invasive diagnostic modalities like evaluation under anaesthesia can result in catastrophic anaesthetic complications.

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**Contributors** The authors take the responsibility of the originality of the article and state that they both have contributed to the article. VUSR is the quarantor, primary consultant of the patient



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and played the key role in establishing the clinical diagnosis. SC is part of the primary consultant's team, helped in establishing the clinical diagnosis and wrote up the article. SSS is the consultant radiologist to evaluate the scan and helped establish the radiological diagnosis.

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