



2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM



# A RARE CASE OF ORTNER SYNDROME (CARDIOVOCAL SYNDROME) SECONDARY TO THORACIC AORTA ANEURYSM

**COMPILED BY DR. MD IMTIYAZ ALI (RESIDENT)  
CASE GUIDE: DR SANATH KUMAR (SENIOR RESIDENT)  
SUBBAIAH INSTITUTE OF MEDICAL SCIENCES,  
SHIVAMOGGA, KARNATAKA.**

## AIMS & OBJECTIVES:

- ▶ Cardio vocal syndrome or Ortner's syndrome is hoarseness of voice due to left recurrent laryngeal nerve palsy caused mainly by mechanical affection of the nerve from enlarged cardiovascular structures. First described by Norbert Ortner. Aortic aneurysm has been rarely described to cause Ortner syndrome.

# Case

- ▶ A 56 year-old patient with complains of hoarseness of voice and dysphagia since 2 months was examined with indirect laryngoscopy.
- ▶ Indirect laryngoscopy revealed ulcero-proliferative lesion in base of tongue on right side with left vocal cord paralysis.
- ▶ On contrast enhanced computed tomography enlarged left pyriform sinus with medialization and thickening of the left aryepiglottic fold and enlarged laryngeal ventricle (sail sign) was seen(s/o left vocal cord palsy).
- ▶ A wide necked partially thrombosed saccular aneurysmal dilatation of arch of aorta noted distal to origin of left subclavian artery was noted.

# RECURRENT LARYNGEAL NERVE COMPRESSION DUE TO AORTIC ANEURYSM

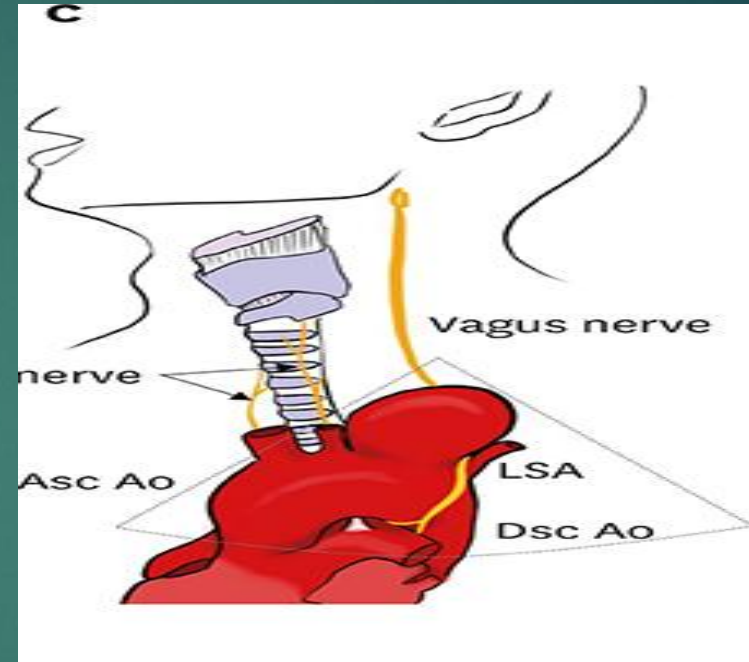
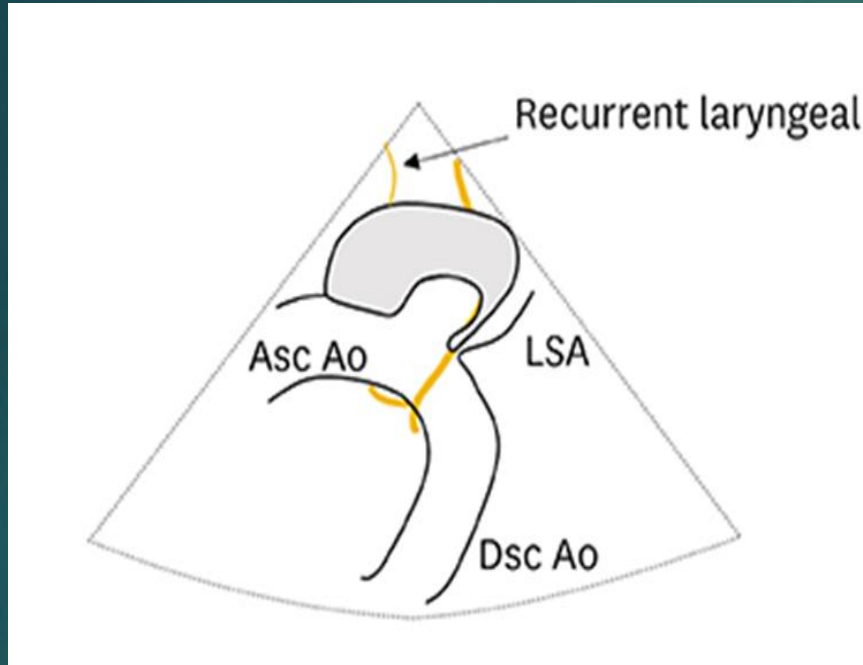
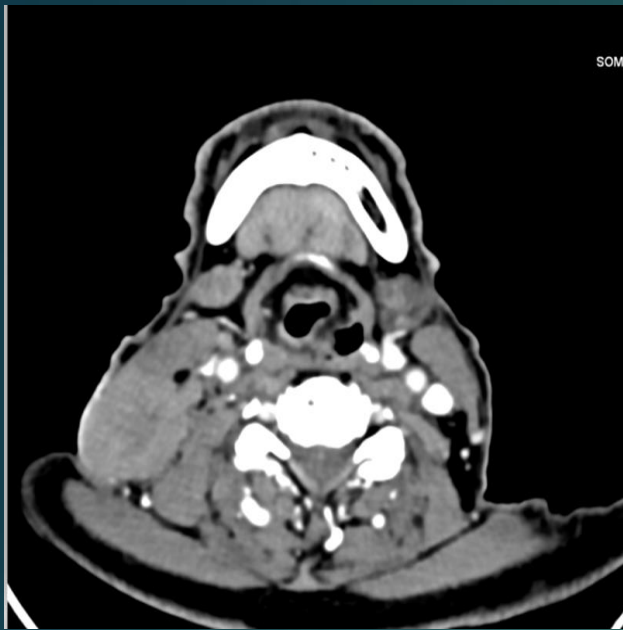
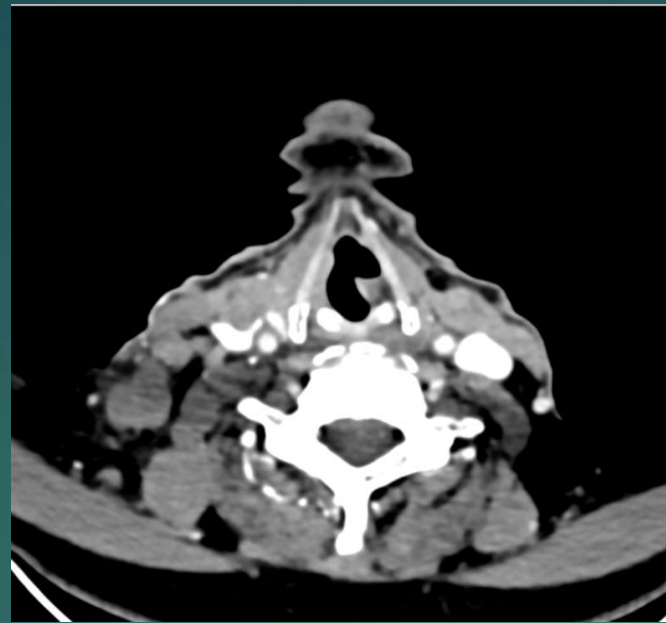


Illustration shows aneurysmal dilatation of aortic arch with compression of recurrent laryngeal nerve.





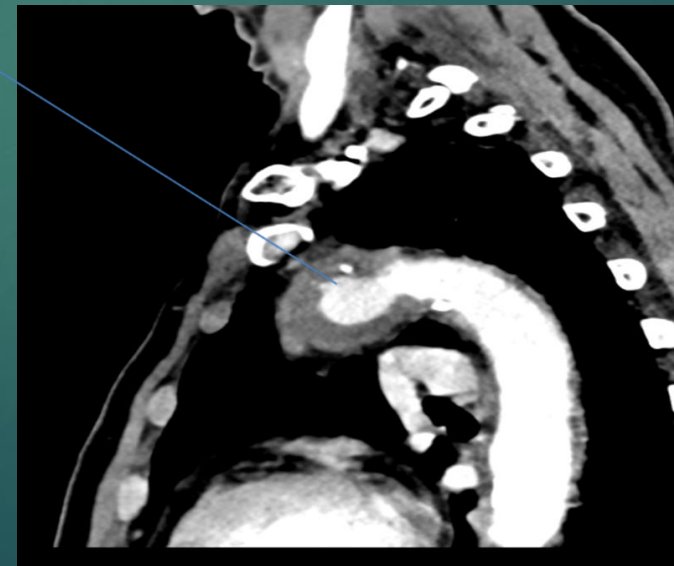
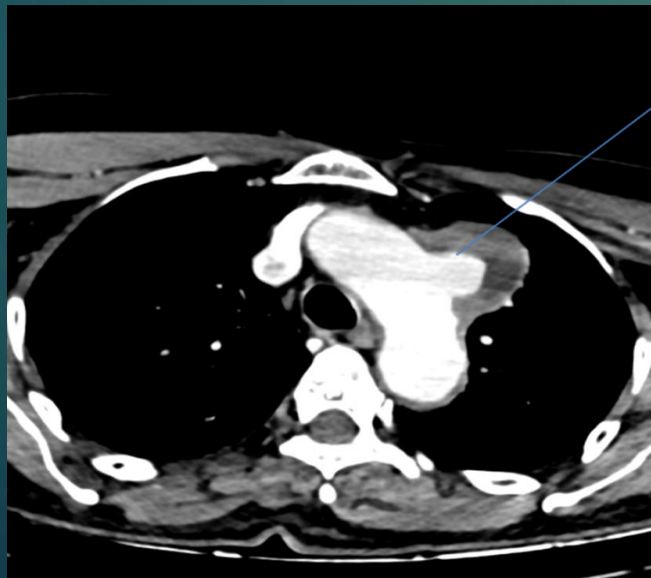
Enlarged left pyriform sinus with medialization and thickening of the left aryepiglottic fold



Enlarged laryngeal ventricle (sail sign)



A wide necked partially thrombosed saccular aneurysmal dilatation of arch of aorta noted distal to origin of left subclavian artery was noted.



ANEURYSM

# DISCUSSION / CONCLUSION:

- ▶ Recurrent laryngeal nerve palsy causes include malignant as well as non-malignant lesions.
- ▶ The nerves of the thorax cannot be directly delineated on CT images, but understanding the functional anatomy and clinical significance of these nerves is important for the correct analysis.
- ▶ Thoracic aorta aneurysm can present with Ortner's syndrome as the first and only manifestation.
- ▶ Radiological imaging modalities are important for differentiating this syndrome from other diseases such as mediastinal masses or pulmonary cancer.

# REFERENCES

- ▶ Yumoto E, Minoda R, Hyodo M, et al. Causes of recurrent laryngeal nerve paralysis. *Auris Nasus Larynx*. 2002;29(1):41–45.
- ▶ Plastiras SC, Pamboucas C, Zafiriou T, et al. Ortner's syndrome: a multifactorial cardiovocal syndrome. *Clin Cardiol*. 2010;33(6):E99–100.
- ▶ Madhuraj S, Gangadharan H, Manju R, et al. A Rare Cause of Ortner's Syndrome and a Case-Based Review of Literature [published online ahead of print, 2021 Apr 1]. *Indian J Otolaryngol Head Neck Surg*. 2021;1-4.
- ▶ Ohki M. Thoracic saccular aortic aneurysm presenting with recurrent laryngeal nerve palsy prior to aneurysm rupture: a prodrome of thoracic aneurysm rupture? *Case Rep Otolaryngol*. 2012;2012:367873.