

Images in
Cardiovascular Medicine



Ortner's Syndrome Discovered by a Routine Echocardiographic Examination: a Huge Aneurysmal Dilatation of the Aortic Arch as a Cause of Hoarseness

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A 73-year-old man presented with new-onset hoarseness for 15 days. His chest X-ray showed an abnormally round shadow above the aortic knob (**Figure 1A**, arrows) and rightward deviation of the trachea. He underwent a routine echocardiographic examination. The echocardiographic examination showed normal left ventricular systolic function without valvular abnormalities. There was no valvular abnormality. During echocardiographic examinations, about a 55×42 mm sized oval-shaped mass lesion was noted on the aortic arch filled with an echogenic lesion (arrow heads, **Figure 1B**; **Supplementary Video 1**). To evaluate the mass lesion, the patient underwent contrast-enhanced computed tomography (CECT). The CECT demonstrated about 65×60 mm sized large saccular aneurysm on the aortic arch filled with mural thrombus near the origin of left subclavian artery (**Figure 2**). The attending

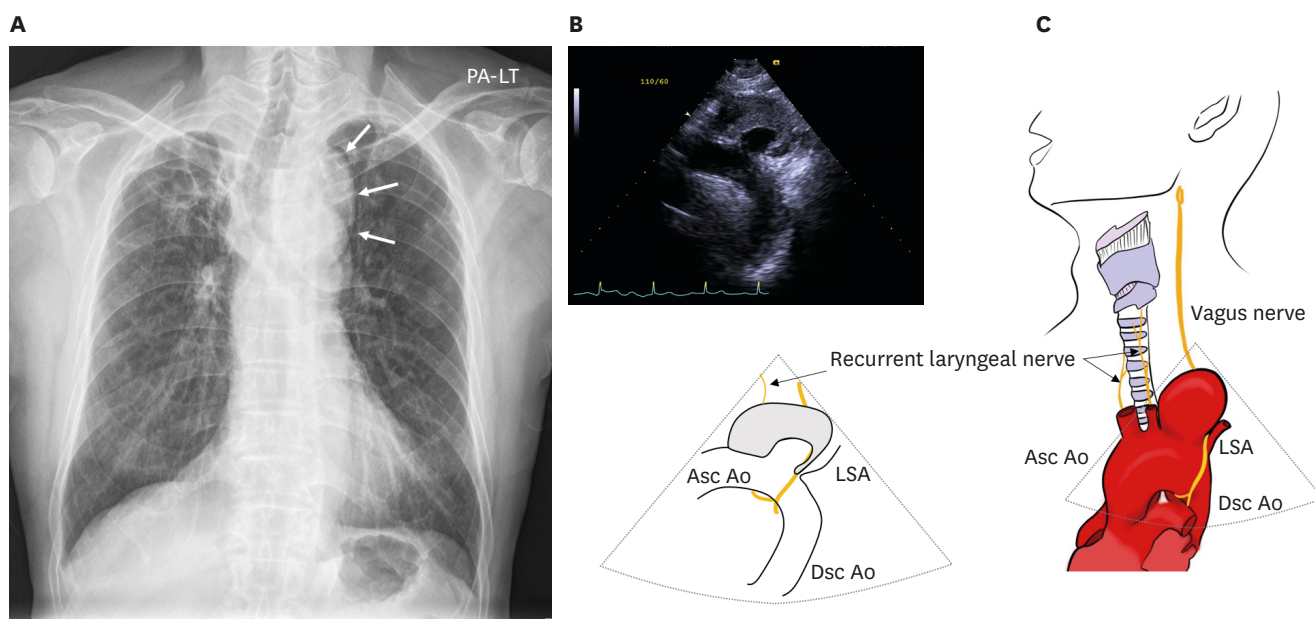





Figure 1. Chest X-ray shows an abnormally round shadow above the aortic knob (A, arrows) and rightward deviation of the trachea. Echocardiographic examination reveals about 55×42 mm sized oval-shaped mass lesion was noted on the aortic arch filled with an echogenic lesion suggesting thrombus (B, arrow heads). Illustration shows aneurysmal dilatation on the aortic arch with compression of the left recurrent laryngeal nerve (C). Asc Ao = ascending aorta; LSA = left subclavian artery; Dsc Ao = descending aorta.

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Conflict of Interest

The authors have no financial conflicts of interest.

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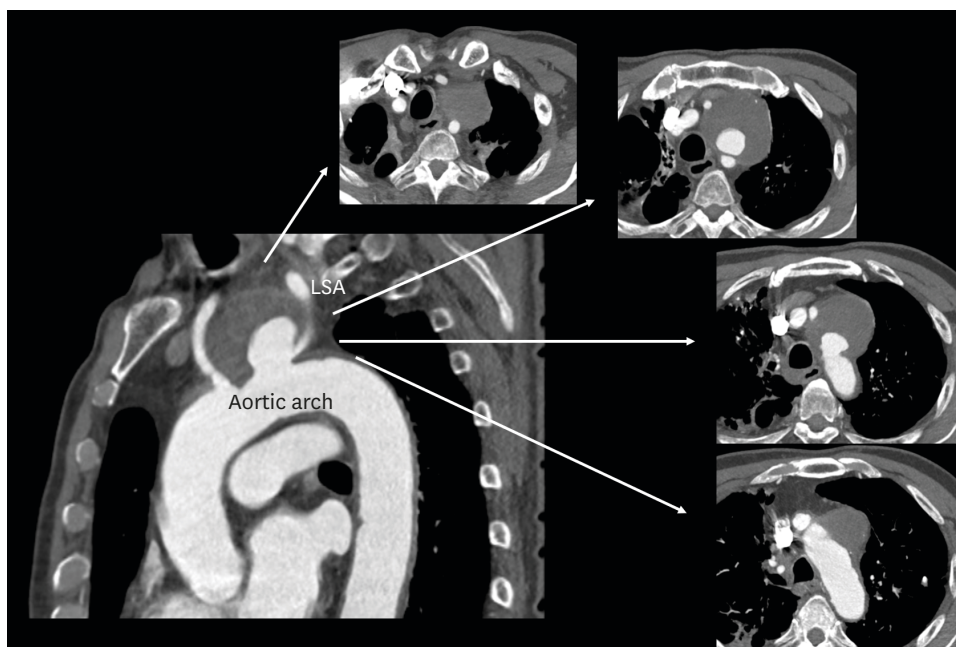


Figure 2. Contrast-enhanced computerized tomography demonstrates about 65×60 mm sized large saccular aneurysm on the aortic arch filled with mural thrombus near the origin of left subclavian artery. LSA = left subclavian artery.

physician treated the patient with a hybrid repair including the transfer of the branch arteries and thoracic endovascular aortic repair.

Ortner's syndrome is a rare cause of hoarseness due to palsy of the recurrent laryngeal nerve.¹⁾ It is originally described by Ortner, and he described a case with left recurrent laryngeal nerve palsy caused by left atrial dilatation caused by mitral stenosis. This term is now used to describe recurrent laryngeal nerve palsy from cardiovascular causes. In our case, hoarseness came from the palsy of the left recurrent laryngeal nerve by the saccular aneurysm (**Figure 1C**, illustration). The aortic arch aneurysm can be treated by total arch replacement surgically or hybrid repair including debranching operation with a thoracic endovascular stent graft.²⁾³⁾ This patient underwent a hybrid repair successfully without any complication.

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SUPPLEMENTARY MATERIAL

Supplementary Video 1

Echocardiographic examination reveals about 55 × 42 mm sized oval-shaped mass lesion was noted on the aortic arch filled with an echogenic lesion suggesting thrombus.

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REFERENCES

1. Kheok SW, Salkade PR, Bangaragiri A, Koh NS, Chen RC. Cardiovascular hoarseness (Ortner's syndrome): a pictorial review. *Curr Probl Diagn Radiol* 2020;S0363-0188(20)30190-0.
[PUBMED](#) | [CROSSREF](#)
2. Rommens KL, Estrera AL. Contemporary management of aortic arch aneurysm. *Semin Thorac Cardiovasc Surg* 2019;31:697-702.
[PUBMED](#) | [CROSSREF](#)
3. Choi BK, Lee HC, Lee HW, et al. Successful treatment of a ruptured aortic arch aneurysm using a hybrid procedure. *Korean Circ J* 2011;41:469-73.
[PUBMED](#) | [CROSSREF](#)