

Eustachian valve remnant

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The eustachian valve exists in the superior portion of the inferior vena cava (IVC) during fetal life [1, 2]. The valve directs blood from the IVC towards the foramen ovale and away from the tricuspid valve, thereby bypassing the (still immature) pulmonary circulation. Postnatally, following closure of the foramen ovale, the eustachian valve has no specific function and therefore tends to regress and is usually absent by adulthood.

A eustachian valve remnant, if present, is usually noted by the presence of a thin ridge or a crescentic fold of endocardium arising from the anterior rim of the IVC orifice. The lateral horn of the crescent tends to meet the lower end of the crista

terminalis, while the medial horn joins the thebesian valve, a semicircular valvular fold at the orifice of the coronary sinus. Alternatively, the remnant may appear as a mobile, elongated structure projecting several centimeters into the right atrial cavity.

Here we show transesophageal images of a large valve remnant in a young adult male. The remnant has no pathophysiologic effects and needs no intervention. Such a large eustachian valve should be differentiated from a Chiari network remnant and cor triatriatum dexter, since the latter requires surgical correction. It is also important to exclude right atrial tumors, thrombi or vegetations, each of which may also require treatment.

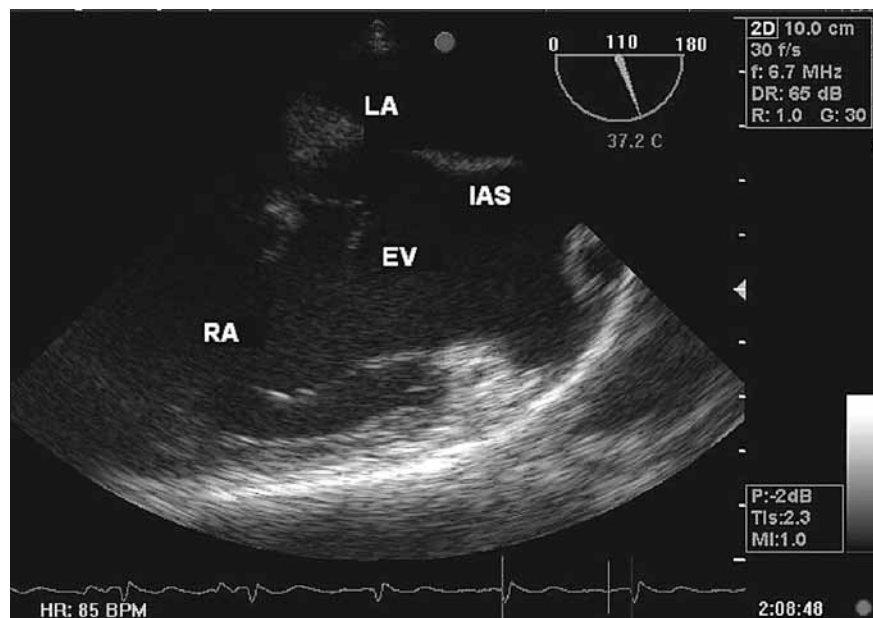


Figure 1. Bicaval trans-oesophageal view showing the Eustachian valve remnant (EV). Additional structures marked are left atrium (LA), right atrium (RA), and intra-atrial septum (IAS).

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Persistent eustachian valves without other significant structural heart disease usually require no treatment. Endocarditis and thrombus formation over the eustachian valve are extremely rare complications [3–6], and therefore antibiotic prophylaxis is not always necessary.

References

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