

3D Transoesophageal Assessment Of Cor Triatriatum

Clinical Case Portal

Date of publication:

07 Jun 2012

Topics: Congenital Heart Disease
Echocardiography (Non-invasive imaging)

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Introduction

Cor Triatriatum is a rare congenital abnormality whereby the atrium is divided into two chambers by a fibromuscular membrane thought to be caused by failure of resorption by the common pulmonary vein. The membrane is fenestrated which allows blood to flow between the two atrial chambers. Symptoms depend on the associated degree of obstruction caused by the membrane; which may cause impaired pulmonary venous flow and development of pulmonary hypertension. Cor triatriatum is associated with other abnormalities including atrial septal defect, anomalous partial pulmonary venous return, bicuspid aortic valve, persistence of a left-sided superior vena cava and mitral regurgitation.

Case Report

We present a 54 year old man who presented with palpitations and was found to be in atrial fibrillation. He was in functional New York Heart Association Class 1. Panel A. Two dimensional (2D) transoesophageal echocardiogram (TEE). A membrane divides the left atrium (LA). Panel B. Three dimensional (3D) TEE. Fibromuscular membrane divides the LA into two chambers. Fenestration within the membrane is seen together with a communicating orifice between the upper and lower chambers measuring 1.2cm^2 . Panel C. Zoom 3D TEE. Thin, walled fenestration (dashed arrow) together with orifice between chambers (solid arrow). Panel D. 3D TEE Colour. Turbulent flow from the superior to inferior chamber via the orifice in the membrane is demonstrated. Mean gradient across the orifice is 3mmHg suggesting only mild obstruction. The patient had mild mitral regurgitation.

Conclusion

The 3D images demonstrate the precise morphological features and functional consequences of this rare abnormality.

Fig. 1 :

Figure 1. 3D Transoesophageal Assessment Of Cor Triatriatum

