Surgery Section

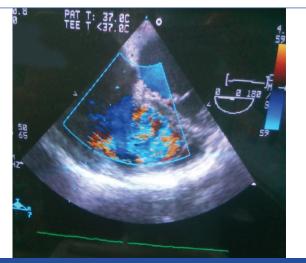
Ball in Right Atrium Cavity: What is your Diagnosis?

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A 28-year-old female presented with dyspnea on exertion for the last three years. Clinical examination showed presence of systolic murmur over 2nd intercostal space radiating to ipsilateral axilla. Trans-Oesophageal Echocardiography (TTE) revealed enlarged Right Atrium (RA), Right Ventricle (RV) and Left Atrium (LA). TTE also showed presentation of a ball in the right atrial cavity [Table/Fig-1], along with normal bilateral ventricular function and left to right shunt [Table/Fig-2].



[Table/Fig-1]: Transesophageal Echocardiography (TEE) showing ball in RA. RA: Right atrium, RSOV: Ruptures sinus of valsalva



[Table/Fig-2]: TEE showing left to right shunt from right coronary sinus to right atrium.

Cardiac catheterization study confirmed Rupture Sinus of Valsalva (RSOV) arising from right coronary sinus and projecting to right atrium with oxygen step-up in RA. Intraoperatively the enlarged, globular mass seen in RA [Table/Fig-3] was plicated and Poly Tetra Flouro Ethylene (PTFE) patch closure of aortic end of the sinus was performed.



[Table/Fig-3]: Intraoperative photograph showing a ball in the right atrium

Ruptured sinus of valsalva aneurysm, a rare but well-recognised clinical entity, is invariably a form of left-to-right shunt due to rupture into right-sided chambers. This condition is found more commonly in Asians than western population [1]. Recently, Xin-Jin L et al., have proposed a modified Sakakibara classification system for RSOV aneurysm according to the site of rupture [2]. Surgical closure is the backbone of therapy for RSOV and has operative mortality of <5 % [3]. Transcatheter closure has been proposed as a safe and effective alternative to traditional surgical correction in selected cases [4,5].

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