CALCIFIED RIGHT-ATRIAL WALL THROMBUS IN A PATIENT OF RHEUMATIC VALVULAR HEART DISEASE- A RARE ASSOCIATION

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PRESENTATION OF CASE

Calcified right atrial wall thrombus (RAWT) is a rare entity and is usually associated with intra cardiac catheters, malignancy and hypercoagulable states. We report a case of 20-year-old female who had rheumatic valvular heart disease detected to have calcified RAWT incidentally during routine intraoperative transoesophageal echocardiography (TEE). A 20 -year- old female was admitted with diagnosis of chronic rheumatic heart disease with severe mitral regurgitation, moderate aortic regurgitation and severe tricuspid stenosis. Left atrium was aneurysmal. (LAES 84 mm).

Figure 1. Intraoperative Transoesophageal Echocardiography Revealing Calcified Thrombus, Marked as Arrows

DISCUSSION OF MANAGEMENT

Patient underwent double valve replacement (mitral valve replacement with 27 mm ST. Judes mechanical valve and 19 mm ST. Judes Regent series aortic valve) with total chordal preservation, left atrial reduction plasty and tricuspid commissurotomy. Intra operative TEE revealed presence of right atrial mass (Figure 1).

Intraoperatively, multiple calcified thrombi were seen adherent to the trabeculated portion of the right atrial wall (Figure 2). Thrombi were extracted from right atrium. The post-operative phase was uneventful and discharged on seventh postoperative day.

Figure 2. Intraoperative Finding After Atriotomy Showing Multiple Calcified Thrombi Adherent to The Trabeculated Portion of Right Atrium

RAWT is very rare; moreover, RAWT has not been reported in rheumatic heart disease to the best of our knowledge. The reported incidence of right atrial thrombus is around 12.5% in literature, RAWT is the rarest form of right atrial thrombus. Thrombus is generally associated with the in-situ catheter tip, malignancy, infection, procoagulant states and structural abnormalities.¹

Incidence of right atrial thrombus in appendage in atrial fibrillation is 3 to 6 %, while in left atrium it is 13%. It is ascribed to the fact that the right atrial appendage, being considerably shallower than the left, provides a less hospitable environment for thrombus formation.^{2,3,4}

Right atrial thrombus is classified on the basis of morphology as⁵ -

Type A: Thrombi are morphologically serpiginous, highly mobile, may prolapse through the tricuspid valve and are associated with deep vein thrombosis and pulmonary embolism.

Type B: Thrombi- are less mobile, attached to the right atrial or ventricular wall and originate in association with foreign bodies or in structurally abnormal chambers.

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Type C: Thrombi are rare, share and similar appearance to a myxoma and are highly mobile.

Patients with suspicion of RA thrombus should be subjected to TEE as it is a better modality compared to standard TTE. Detection is also determined by size, mobility, and site of attachment.⁶

TEE plays an important role in the evaluation of right atrial wall thrombus. Incidence of right atrial wall thrombus in rheumatic valvular disease is rare. Patients with atrial fibrillation should be evaluated by intraoperative TEE. The exact mechanism of development of right atrial wall thrombus may be related to the relative stasis of blood in atrial fibrillation.

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