Images in Medicine

Ruptured Sinus of Valsalva Aneurysm association with Bicuspid Aortic Valve Mahorkar U. K.¹, Lavhe P.², Ekbote S.³

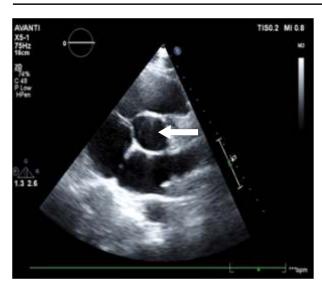


Fig. 1 : PSAX view at Aortic root level showing Bicuspid aortic valve

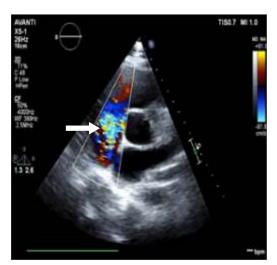


Fig. 3: PSAX view colour Doppler shows ruptured sinus valsava from aorta to RA windsock appearance

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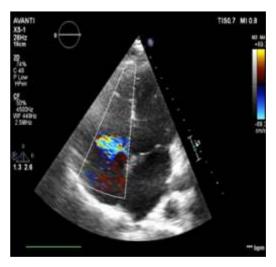
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Fig. 2: PSAX view at AO root arrow shows ruptured sinus of valsalva



Apical 4 chamber view showing slightly dilated atrium & right ventricle with colour flow in right atrium

Sinus of Valsalva Aneurysm (SVA) is a rare cardiac anomaly and comprises less than 1% of congenital cardiac defects. It can be congenital or acquired. Echocardiography and cardiac magnetic resonance imaging are noninvasive imaging procedures primarily used for diagnosis.

A young patient presented with increasing Dyspnoea of recent onset of approximately 10 days

duration. Physical examination revealed a regular pulse of 110 beats / min. The blood pressure was 110/60 mm Hg. He had a grade 5 continuous murmur with bilateral few blood crepts on physical examination.

Transthoracic echocardiography was performed and showed a slightly dilated right ventricle in the presence of a ruptured SVA left-to-right shunt from the aorta into the right atrium in association with a bicuspid aortic valve. An echocardiogram showed a classical "windsock" of a ruptured sinus of Valsalva aneurysm to the right ventricle. Transoesophageal echocardiography and magnetic resonance imaging are useful for diagnosis and may help to delineate the anatomy further.

Ruptured sinus of Valsalva is an uncommon condition, with aneurysms of the sinuses of Valsalva accounting for about 1% of congenital abnormalities. An association with bicuspid aortic valve is known.

References:

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