GLENMARK CARDIAC CENTRE
NEWSLETTER

November : 2010 Issue : 10

Season's greetings, wishing you
a very Happy Diwali & New Year.

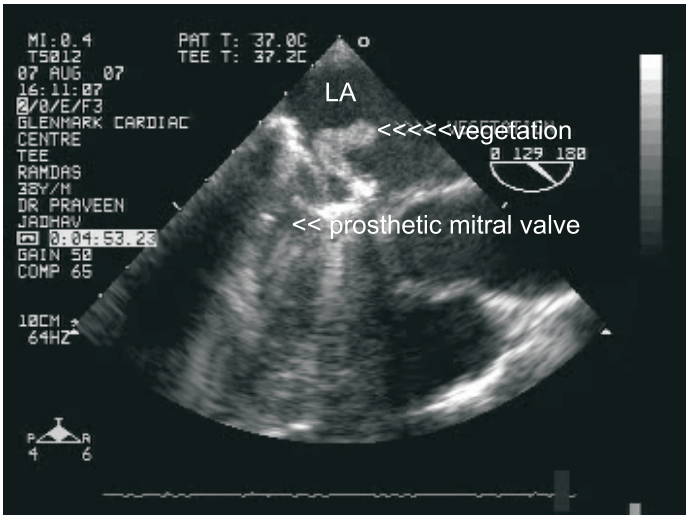
PROSTHETIC VALVE DYSFUNCTION

Prosthetic valve dysfunction can present with valve stenosis or regurgitation. The two dreaded complications of prosthetic valves are infective endocarditis and thrombus formation. In addition, suboptimal anticoagulation may lead to gradually developing pannus formation. At times, there can be technical issues related to suture dehiscence.

Transesophageal echocardiography (TEE) is superior to transthoracic echocardiography for proper identification and assessment of the above complications.

This newsletter we present some images of prosthetic valve dysfunction.

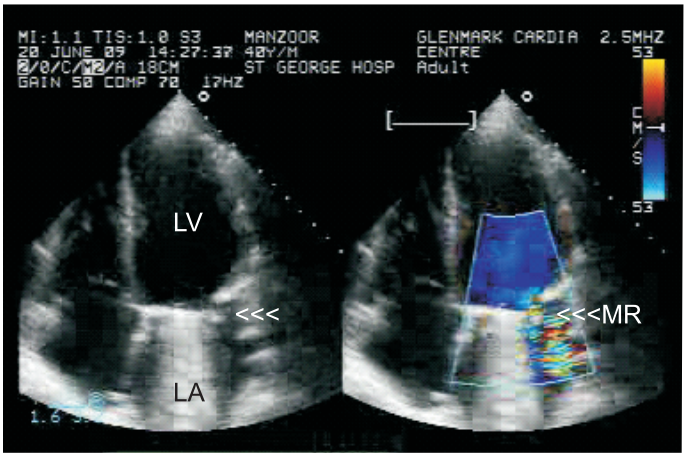
Figure 1:



Case 1:- Figure 1 shows a TEE image of large, mobile vegetation protruding into the LA, in a patient with metallic mitral valve prosthesis and having low grade fever. Identifying these vegetations is often difficult on transthoracic echo because of metallic reverberations on the atrial side.

Case 2:- A 40 yr-old-gentleman with a recent metallic mitral valve replacement continued to have dyspnea. 2 D echo colour Doppler (Figure 2) revealed rocking motion of the prosthetic mitral valve (white arrowheads). The lateral edge of the valve prolapses into the LA with significant paravalvar mitral regurgitation (likely due to suture dehiscence).

Figure 2:



Case 3:- A 22 yr-old-man with a metallic aortic valve prosthesis presented with increasing fatigue and dyspnea. His 2 D echo showed significant flow acceleration (white arrowheads) across the prosthetic aortic valve (Figure 3 a). The peak / mean gradients across the aortic valve were 117/72 mm Hg (Figure 3 b). This was most likely due to thrombus / pannus formation.

Figure 3 a :

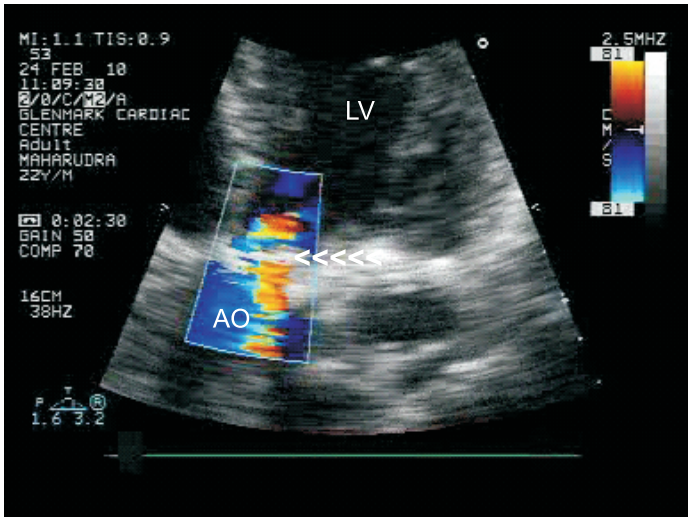
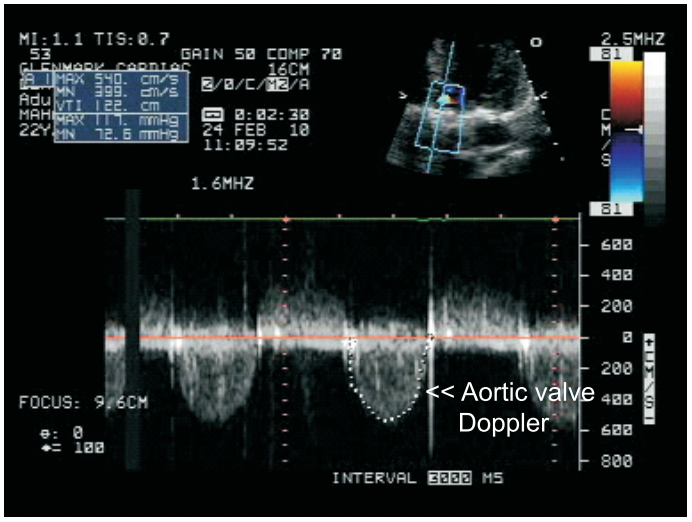


Figure 3 b :



Case 4:- A 53 yr-old-gentleman with metallic mitral valve prosthesis was referred for a TEE in view of transient ischemic attack (TIA). The TEE showed an echogenic layer (white arrowheads) over the prosthetic valve on the left atrial side (Figure 4 a), likely to be a pannus formation. Figure 4 b shows significant flow acceleration across the prosthesis suggestive of significant restenosis.

Figure 4 a :

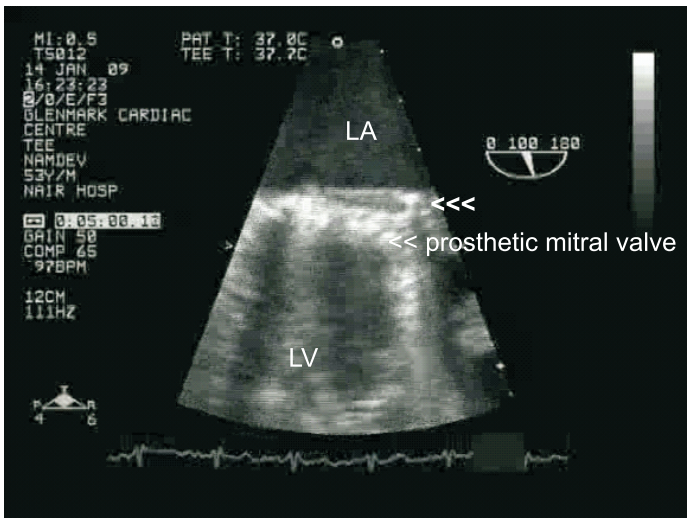
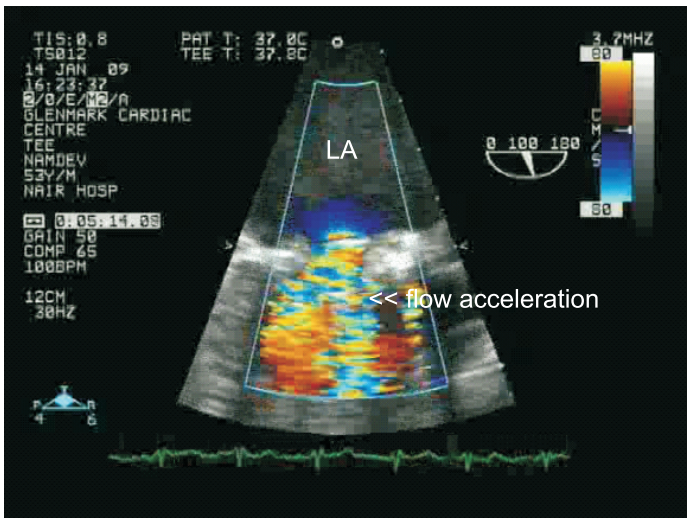


Figure 4 b :



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INVESTIGATIONS PROVIDED AT OUR CENTRE

- 2D Colour Doppler Echocardiography
- Pediatric Echocardiography
- Fetal Echocardiography
- Transesophageal Echocardiography
- Dobutamine Stress Echocardiography
- Head-up Tilt Test
- Peripheral Vascular Doppler
- Computerised Stress Test
- Ambulatory B.P. Monitoring
- Ambulatory Holter Monitoring
- Event Recorder
- Tissue Doppler
- 3D Colour Doppler Echocardiography
- Diet Consultant : Dr. Sheetal R. Mhamunkar
- Comprehensive Cardiac Medical Check-up

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