Thrombosis of Bioprosthetic Mitral Valve

Rajeev Bhardwaj¹, Munish Dev²

A 5-year-old female, had undergone mitral valve replacement for severe MR, with bioprosthetic valve, two and half months back. She was on Warfarin, 4 mg once a day. She presented with breathlessness for three day. She also had paroxysmal nocturnal dyspnoea. On examination her BP was 100/70 mm Hg, heart rate 124/min, respiratory rate 24/min. On cardiovascular examination, she had long mid diastolic murmur at apex. Echocardiography showed evidence of thrombus over the prosthetic mitral valve (Figure 1). Peak gradient across mitral valve was 19 mm Hg and mean gradient was 6 mm Hg. Her INR was 1.3. She was thrombolized with streptokinase and improved.

The incidence of thrombosis of mechanical prosthetic valves ranges from 0.5 to 6 percent (in the aortic- and mitral-valve positions) to 20 percent (in the tricuspid-valve position) per patient-year. For bioprostheses, the overall average rate of thrombotic stenosis is 0.03 percent per year.¹ Heart-valve thrombosis may present insidiously, and recognition of it may be difficult. Guidelines differ in their recommendations regarding the choice of treatment for prosthetic valve thrombosis. For example, although the Society for Heart Valve Disease (SHVD) recommends fibrinolytic therapy (FT) for all patients,² the European Society of Cardiology (ESC) recommends FT only if the risk of surgery is prohibitive or in the event that it is not available and the patient cannot be transferred.³

References


¹Professor, ²Senior Resident, Cardiology, Indira Gandhi Medical College, Shimla, Himachal Pradesh

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