Rethrombolysis for Restruck Prosthetic Valve

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One of the complications of prosthetic valve (PV) is thrombotic occlusion of the valve. The incidence is 5/100/yr overall and is more common in mitral position than in aortic position, PV thrombosis presentation can be acute due to thrombi (55%), Subacute due to thrombus and pannus (40%) and Chronic due to pannus alone (5%). It can manifest as congestive cardiac failure, Pulmonary embolism, cardiogenic shock, Thromboembolism or death. Conventionally it was treated with surgical thrombectomy and pannus excision or valve replacement. Later on thrombolysis was tried and various agents like Streplokinase, Urokinase and t- PA have been used successfully to lyse the thrombus.

We are reporting a 64 year lady who underwent mitral valve replacement with a 25mm Chitra valve on 1-3-02 for chronic Rheumatic heart disease. Six months later she presented with acute pulmonary edema and echocardiography revealed a struck valve with a large thrombus sitting over the PV. She was thrombolysed with streptokinase 2.5 L IV bolus and 1 L/hour infusion for 24 hours. The clot lysed and her gradients returned to postoperative levels. After discharge patient was not compliant with her anticoagulants. On 8-8-03 after another 11 months patient was readmilled with acute pulmonary edema. Echocardiography this time revealed a struck valve with Peak Velocity of 2.8m/sec, and mean gradient of 2lmmH with a MVO of 0.5 cm square. Since she was thrombolysed with Streptokinase 10 months back this time we thrombolysed her with Urokinase 44001U/Kg IV bolus over 10 minutes followed by 4400IU/Kg Infusion for 24 hours, Again the struck valve opened and her gradients came down to basal levels with a MVO of 2.96 cm/square.

Thus Rethrombolysis can be done in patients with restruck valves.