Abstract: 824

A long history of recurrent prosthetic mitral valve thrombosis due to hypereosinophilic syndrome

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Topic(s):
Valvular Heart Disease – Pathophysiology and Mechanisms

Citation:

Background:
Hypereosinophilic syndrome (HES) is a rare disorder defined as a persistent, unexplained peripheral marked eosinophilia. Although the exact mechanism of eosinophil-related tissue damage is not well known, endocardial fibrosis and thrombus formation are common occurrences. Cardio embolism is acknowledged as the most common etiology for stroke and transient ischemic attack (TIA).

Case report:
We report the case of a 42-year-old woman suffering from idiopathic HES with recurrent stroke and TIA, due to native mitral valve thrombosis followed by mechanical prosthetic mitral valve thrombosis one month postoperatively, concomitant with severe eosinophilia and despite adequate anticoagulation. A bioprosthetic mitral valve replacement was performed and oral anticoagulation was maintained associated with 100mg of aspirin. Four years postoperatively, the patient presented with dyspnea and recently diagnosed atrial fibrillation. Transesophageal echocardiography (TEE) was performed prior to cardioversion, showed leaflet thrombosis in the bioprosthetic mitral valve concomitant with severe eosinophilia despite corticosteroid therapy and adequate anticoagulation. Patient was putted on heparin therapy and high dose of corticosteroid. TEE performed at 04 weeks follow up showed the disappearance of thrombi. Electric cardioversion was successfully done. Oral anticoagulation associated with aspirin was maintained and no recurrent thromboembolic event was recorded at 03 months clinical follow-up.

Conclusion:
Other than cardiac emboli and direct eosinophil toxicity, there is a hypercoagulable state in eosinophilia which can contribute to strokes. Our patient had recurrent heart embolism and strokes due to native, mechanical prosthetic and bioprosthetic mitral valve thrombosis induced by eosinophilia. Reduction of eosinophils with corticosteroid therapy and simultaneous anticoagulation had contributed in the resolution of thrombus and complete clinical recovery of the patient in our case.
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