

Case Report

Thrombocytopenia Induced by Giant Atrial Thrombus in Rheumatic Valve Disease- A Case Report

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Abstract:

We report a 52-year-old and weight of 79.36 lbs female patient with Thrombocytopenia induced by giant atrial thrombus in rheumatic mitral stenosis. The patient underwent bioprosthetic mitral valve implantation and removal of the giant thrombus. The platelet count progressively increased achieving normal levels one week after surgery.

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Keywords:

Platelet, DIC, Rheumatic heart disease, Mitral stenosis, Left Atrial thrombus..

Introduction:

Mitral stenosis increases blood stasis, representing a major risk factor for left atrial clot formation.^{1,2} Severe thrombocytopenia, in the absence of heparin treatment or major hepatic dysfunction, could be explained by 'acute thrombosis-associated thrombocytopenia'.³ Hypothesis suggested that large fresh clots consume platelets on their surface, likely due to the exudation of thromboplastic substances. This process can be regarded as a form of disseminated intravascular coagulation.^{4,5} Here we report a rare case of thrombocytopenia induced by giant atrial thrombus in rheumatic valve disease with successful mitral valve replacement and removal of giant thrombus.

Case Report:

A 52-year-old and weight of 79.36 lbs woman with no previous medical history presented with signs of congestion and rapid atrial fibrillation (Fig.-2: ECG). There was evidence of thrombocytopenia ($70 \times 10^9/L$) and moderate elevation of transaminases, NT Pro BNP 4811 pg/ml and

Dengue NS1Ag (ICT): Negative. An abdominal ultrasonography showed no liver alterations and no splenomegaly. Transthoracic echocardiogram confirmed the findings and showed rheumatic severe mitral valve stenosis, severe TR (PASP:96



Fig.-1: X- Ray of chest (PA view).

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mmHg) with severe pulmonary hypertension and a giant left atrial thrombus with pulmonary vein infiltration (Fig.3). Coronary angiography revealed normal epicardial coronary arteries. Patient underwent bioprosthetic mitral valve implantation, removal of giant thrombus (Fig. 4) and postoperative course was uneventful.

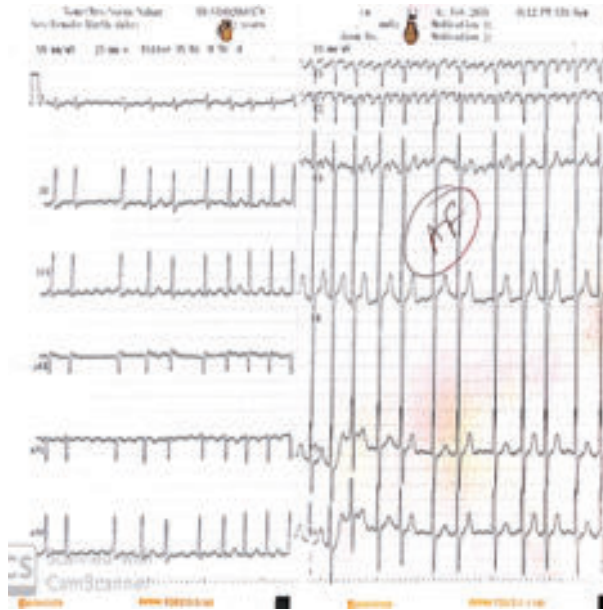


Fig.-2: ECG showing atrial fibrillation,



Fig.-3: Echo Laminated Organized Thrombus

The patient was discharged on the 7th postoperative day (POD) in a very good physical condition. At 5th POD the platelet count increased to $125 \times 10^9/L$.

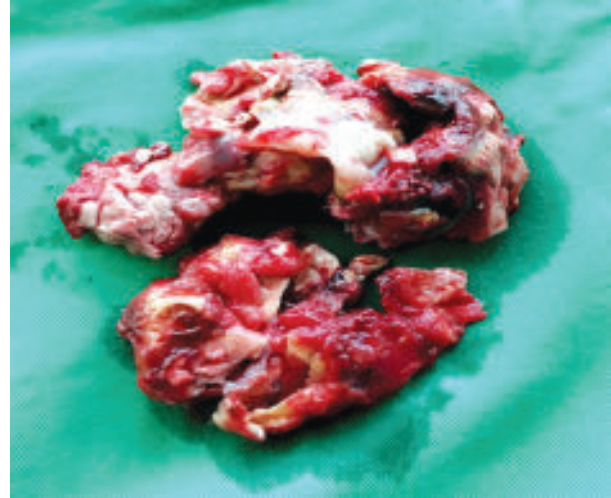


Fig.-4: Specimen LA thrombus.

She was then checked at the follow up clinic 3 weeks after the surgical intervention the platelet count became $390 \times 10^9/L$ that drastically raised from the initial count $70 \times 10^9/L$.

Conclusion:

A patient of severe mitral stenosis with giant left atrial thrombus causing thrombocytopenia, in whom platelet count normalized after surgical removal of the thrombus along with valve replacement.

Conflict of Interest - None.

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