

Unusual cause of sudden death in a young patient with atrioventricular septal defect

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A 24-year-old woman with Down's syndrome and complete atrioventricular septal defect (Rastelli type A) underwent complete repair with a single-patch technique and resuspension of the mitral valve at one year of age. On the day of her death, she complained of chest pain shortly after awakening. This was followed by retching and cardiac arrest. She had been on oral contraception and prednisone for juvenile rheumatoid arthritis. Postmortem examination confirmed infarction involving the anterior wall, but there was no significant coronary artery stenosis. An occlusive embolus was identified in a septal branch of the left anterior descending artery (Figure 1), which likely originated from the thrombus at the cleft of the anterior mitral leaflet (Figure 2). Sutures from a previous repair were still visible.

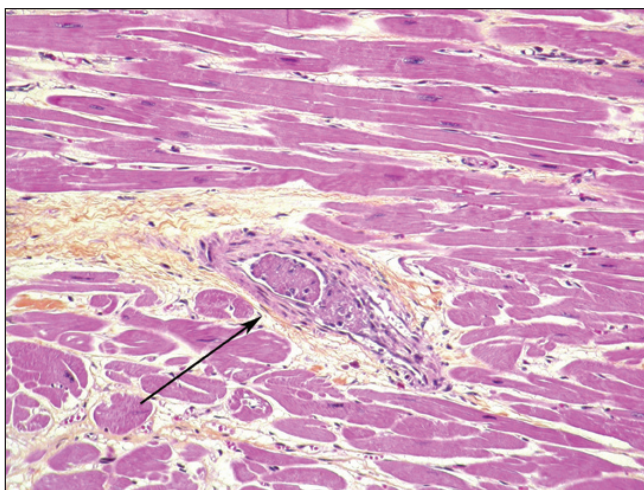


Figure 1 An occlusive embolus (arrow) was identified in a septal branch of the left anterior descending artery

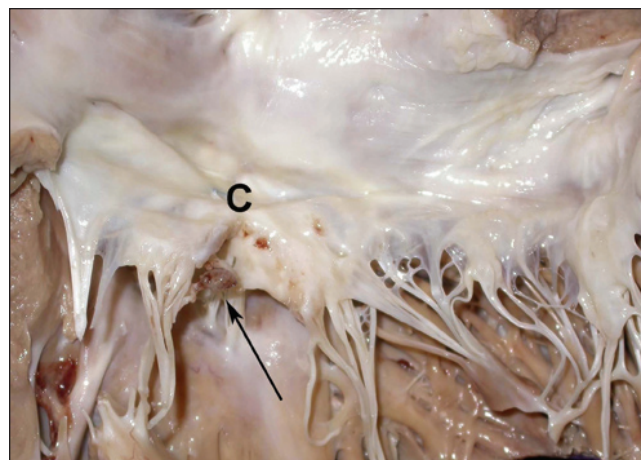


Figure 2 Thrombus (arrow) at the cleft (C) of the anterior mitral leaflet

The long-term sequelae following repair of atrioventricular defects include injury to the atrioventricular bundle, patch dehiscence and suboptimal repair of the atrioventricular leaflet (1), but embolic myocardial infarction arising from valvular thrombus on the cleft mitral valve has not been reported. The present patient's predisposition to valvular thrombosis may be related to the long-term use of corticosteroids and estrogen. The thrombus location can be explained by disrupted endothelium at the cleft due to mitral regurgitation.

REFERENCE

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