Mycophenolate/prednisone/tacrolimus

Spontaneous coronary artery dissection: case report

A 37-year-old man developed spontaneous coronary artery dissection (SCAD) during immunosuppression therapy with mycophenolate, tacrolimus and prednisone (routes and times to reaction onset not stated). The man, who had undergone heart transplant for idiopathic dilated cardiomyopathy 1 year earlier, post which he had been receiving maintenance immunosuppression with prednisone 5mg once daily, mycophenolate 1g twice daily and tacrolimus 4mg twice daily, presented to clinic with complaints of new-onset shortness of breath and episodic palpitations with associated dizziness. His BP was 122/72mm Hg, while his HR was 102 beats/min. Blood work revealed elevated levels of troponin, while electrocardiogram demonstrated ST-segment elevation with pathologic Q waves in the anterior leads, compatible with an anterior myocardial infarction (acute coronary syndrome). Transthoracic echocardiogram showed significant changes, including reduced left ventricular systolic function with an ejection fraction of 35-40%, regional wall motion abnormalities compatible with left anterior descending (LAD) coronary artery infarction, reduced right ventricular systolic function, and a moderately-sized laminated apical thrombus. Right-sided heart catheterisation showed normal haemodynamics and normal filling pressures, while left-sided heart catheterisation showed a spiral dissection resulting in total occlusion of the LAD artery lumen. Endomyocardial biopsy showed no signs of rejection. Angiogram demonstrated SCAD involving the left anterior descending artery. Based on these findings, he was diagnosed with acute coronary syndrome resulting from SCAD secondary to immunosuppression.

The man was treated with heparin for left ventricular thrombus. He underwent percutaneous coronary intervention with placement of a drug-eluting stent to the LAD artery. He received aspirin, clopidogrel and warfarin. His condition clinically improved, and he was discharged with scheduled follow-ups. During follow-up, 4 months post discharge, he exhibited clinical improvement, with no shortness of breath or chest pain. Echocardiogram revealed a left ventricular ejection fraction of 45-50%, with mild akinesia involving the distal LAD territory and normal valvular movement.

Sbitli T, et al. Spontaneous Coronary Artery Dissection in a Transplanted Heart. JACC: Case Reports 4: 1439-1442, No. 21, 2 Nov 2022. Available from: URL: http://doi.org/10.1016/j.jaccas.2022.06.016

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