1092

Cardiogenic shock in a young woman: An unusual presentation of cardiovascular syphilis

Jaemyoung Lee1, Yun-Ho Cho1, Jong-Hwa Ahn1, Jae-Seok Bae1

[1]Cardiology, Gyeongsang National University Changwon Hospital, Korea

Background: Syphilis was once a fatal infectious disease. However, following the discovery of penicillin and the implementation of early treatment protocols, its incidence declined dramatically. Nevertheless, approximately 10% of untreated individuals may develop cardiovascular syphilis several decades after the initial infection. Here, we report a rare case of cardiogenic shock secondary to cardiovascular syphilis.

Case presentation: A 44-year-old woman was brought to the emergency department (ED) by ambulance due to progressive dyspnea. Upon arrival at our ED, the patient exhibited hypotension, tachycardia and altered mental status. Point-of-care testing revealed metabolic acidosis and elevated serum lactate levels. Initial electrocardiography demonstrated a left bundle branch block morphology with ST-segment elevations in the anterior leads and chest radiography showed bilateral pleural effusion.

A bedside transthoracic echocardiogram identified a markedly dilated left ventricle with severe left ventricle systolic dysfunction and severe aortic regurgitation.

Veno-arterial extracorporeal membrane oxygenation was promptly initiated due to persistent cardiogenic shock. Emergent coronary angiography showed a total occlusion of the left main coronary artery with collateral flow from the right coronary artery. Subsequent computed tomography aortography demonstrated inflammatory changes involving the ascending aorta and the aortic root.

Comprehensive evaluations for autoimmune disease and systemic vasculitis were unremarkable. However, serologic testing for syphilis revealed a rapid plasma reagin titer of 1:256. Fluorescent treponemal antibody absorption IgG was positive, while IgM was negative, consistent with late-stage syphilis.

Conclusion: This case report successfully managed a patient with critical presentation of cardiovascular syphilis, through early diagnosis, mechanical circulatory support, coronary intervention, surgical correction and penicillin therapy, emphasizing the importance of clinical recognition and differential diagnosis.