Cardiovascular complications of tertiary syphilis: a case report

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Introduction. Cardiovascular syphilis is a rare but serious late manifestation of *Treponema pallidum* infection, typically affecting the ascending aorta and coronary ostia[1,2]. It can mimic atherosclerotic disease and lead to aneurysm formation, aortic regurgitation, or ischemic heart disease[2,3]. Despite effective antimicrobial therapy, delayed or inadequate treatment may result in irreversible cardiovascular damage.

Case report. We present a 71-year-old female with a history of arterial hypertension, dyslipidemia, chronic obstructive pulmonary disease, and prior ischemic stroke. During preoperative assessment in 2023, serology was positive for *T. pallidum* and she received benzathine penicillin G therapy. She was admitted for cardiological evaluation after incidental findings of an anteroseptolateral scar on 12-lead electrocardiography. Echocardiography showed mildly reduced left ventricular systolic function (LVEF 47%) with akinesis of the septum, apex, and basal inferior wall. Coronary angiography revealed chronic total occlusion of the left anterior descending (LAD) artery with collateral circulation, but without typical atherosclerotic features. Given her history of syphilis, cardiovascular tertiary syphilis was suspected. MSCT confirmed chronic LAD occlusion without aortic dilatation or signs of aortitis. Neurological, dermatological, and infectious disease consultations excluded neurosyphilis or cutaneous involvement. The patient remained hemodynamically stable during hospitalization and was discharged with optimized medical therapy and follow-up for myocardial viability testing.

Conclusion. This case highlights the importance of considering tertiary syphilis in the differential diagnosis of atypical coronary artery disease. In addition to multidisciplinary collaboration, nurses play a pivotal role in patient care. Key nursing interventions included structured education about disease progression and medication adherence, as well as continuous monitoring for signs of heart failure (e.g., weight control, dyspnea assessment). These contributions not only support early detection of complications but also improve long-term outcomes and patient self-management.

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