A Crack in the Wall

Ahmed Hesham Hammad, M.Sc

Cardiology Specialist, Mansoura University

Background:

Spontaneous coronary artery dissection (SCAD) is an underrecognized cause of acute coronary syndrome (ACS), typically affecting young women. However, it may present in atypical patients, including young men with no risk factors. Accurate diagnosis requires high clinical suspicion and appropriate imaging modalities.

Case Presentation:

A 27-year-old male presented with NYHA class II dyspnea, no chest pain, and a negative past history. ECG was nonspecific. Transthoracic echocardiography showed a dilated LV with impaired systolic function and mid to apical anterior and anteroseptal segments hypokinesia. CTCA was normal with zero calcium score. CMR showed elevated native T1 and T2 values, with subendocardial LGE in the same regions, suggesting ischemic injury. Coronary angiography revealed a Type 1 dissection of the proximal to mid LAD with preserved TIMI III flow, confirming the diagnosis of SCAD.

Management:

Given hemodynamic stability and preserved coronary flow, the patient was managed conservatively with medical therapy and close follow-up

Discussion:

SCAD should be considered in young, low-risk individuals presenting with unexplained LV dysfunction. CTCA may miss SCAD, especially in Type 1 and 2 lesions. CMR can identify ischemic injury with accuracy; and as in this case, prompted invasive angiography, which confirmed SCAD. Multimodality imaging is critical for accurate diagnosis, especially when initial tests are inconclusive.

Conclusion:

This case emphasizes the importance of considering SCAD in atypical demographics. Accurate diagnosis relies on a high index of suspicion and appropriate use of imaging modalities. Conservative management remains appropriate for hemodynamically stable cases with preserved coronary flow.

Keywords:

SCAD; CMR; non-atherosclerotic AC