Abstract: P784

Unusual presentation for an uncommon infarction

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Topic(s):
Acute Coronary Syndromes – Pathophysiology and Mechanisms

Citation:
A 55-year-old male with no prior cardiac antecedents presented to our hospital referring a history of chest pain during the last three days. The symptoms started 72 hours before the admission, and consisted of substernal and epigastric oppression while walking. The next day, similar chest pain occurred again during low intensity physical activity. The patient came because in the last 24 hours he experimented resting pain, aggravated by decubitus and deep breathing. No infectious symptoms associated during the previous weeks. The 12-lead ECG (image A) showed slight and diffuse concave ST segment elevation more marked in leads V2-V4. Laboratory analysis revealed mild leucocytosis (13.100 cell/mm³) and troponin I elevation, with atypical curve for ischemia (23.8->20.8->31.5->22.7 ng/mL). The patient was admitted to cardiac intensive care unit with perimyocarditis as first diagnosis.

Cardiac magnetic resonance was performed within the next 48 hours showing slightly increased size of the right ventricle (RV) with severely decreased ejection fraction (29.6%). Transmural late gadolinium enhancement (image B) was detected in right ventricle’s free wall and diffusely in pericardium, with mild pericardial effusion.

Coronary angiography showed proximal total occlusion (image C) of a scarcely developed and non-dominant right coronary artery, without lesions in the left arteries. Percutaneous intervention over the responsible lesion was failed.

The patient was discharged after 5 days, asymptomatic, with double antiplatelet treatment (acetylsalicylic acid + ticagrelor) and no anti-inflammatory regimen was prescribed. One year after hospital discharge, the patient remains asymptomatic, with excellent results in cardiopulmonary exercise testing, and with improved RV ejection fraction (51%) in a control cardiac magnetic resonance.

Conclusions
Isolated right ventricle infarction is an uncommon finding, representing 1-2% of all MI, which is related with higher mortality when compared with same size MI affecting the left ventricle, mostly due to haemodynamic impairment and arrhythmias. However, long-term prognosis is good in those surviving the acute phase.

Early infarct associated pericarditis (peri-infarction pericarditis) is a common complication that can appear in up to 68% of patients suffering a myocardial infarction(MI). Its clinical and electrocardiographic presentation is similar to other etiologies of acute pericarditis. In contrast with idiopathic / viral caused pericardial inflammation, where an anti-inflammatory treatment is recommended, in the setting of MI this approach might be harmful and thus is not routinely prescribed.
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