

## Chapter 7

### ACUTE PERICARDITIS AND MYOPERICARDITIS

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#### Acute Pericarditis

Acute pericarditis is a disease caused by the inflammation of the pericardium (Tonini, Melo & Fernandes, 2015). Pericarditis is responsible for 0.1% of all hospital admissions and 5% of emergency department (ED) admissions for chest pain (Imazio M. 2012, Imazio & Gaita 2015, LeWinter, 2014). The clinical diagnosis of acute pericarditis can be made with 2 of the 4 criteria according to the 2015 European Society of Cardiology guideline of pericardial diseases (Adler& ark., 2015). These criteria are typical chest pain, pericardial friction rub, pericardial effusion (new or worsening), and electrocardiographic changes. The characteristic electrocardiogram (ECG) findings in patients with acute pericarditis are a diffuse elevation of the ST-segment. Historically, in 1973, ECG changes were defined by Spodick (Spodick, 1973) in 4 stages, including ECG findings in a patient with acute pericarditis progressing from ST elevations to T-wave inversion and returning to baseline ECG (Typical ECG). The typical ECG changes with ST-elevation have been reported in up to 60% of the cases (Imazio & ark., 2004). The rest of the patients, those with atypical ECG (elevation of PR segment in lead aVR and depression of PR segment in other leads, especially in leads V5 and V6), had no ST elevations (Bruce & Spodick, 1980). Acute pericarditis can be divided into two groups according to the presence or absence of typical ECG findings (Saricam & Saglam, 2018).

#### Atypical Pericarditis

If ST-segment elevation in ECG seems not to exist, acute pericarditis may easily be missed even if typical chest pain exists (Pedley, Brett & Nichol, 2002, Saricam & Saglam, 2016). PR-segment depression may be the earliest ECG change in patients with acute pericarditis and in following time, from atypical pattern to typical pattern transition may be occur (Saricam & Saglam, 2018, Baljepally & Spodick, 1998). The rest of the patients, those with atypical ECG (elevation of PR segment in lead aVR and depression of PR segment in other leads, especially in leads V5 and V6), had no ST elevations (figure 1-2).

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<sup>1</sup>MD

<sup>2</sup>MD

## Therapy

Hospitalization is recommended for diagnosis and monitoring in patients with myocardial involvement. Rest and avoidance of physical activity beyond normal sedentary activities is recommended in non-athletes and athletes with myopericarditis for a period of 6 months. Management is similar to that recommended for pericarditis. Empirical anti-inflammatory therapies (i.e. aspirin 1500–3000 mg/day) or NSAIDs (ibuprofen 1200–2400 mg/day or indomethacin 75–150 mg/day) are usually prescribed to control chest pain, while corticosteroids are prescribed as a second choice in cases of contraindication, intolerance or failure of aspirin/NSAIDs (Imazio & Cooper, 2013).

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