

## Letter to the Editor

## Editöre Mektup

**Persistent Stage-1 changes imply sustained perimyocardial irritation**

We read with great pleasure the recently published case by Duman et al. in the Archives of the Turkish Society of Cardiology.<sup>[1]</sup> The case underscores an important complication of esophageal rupture viz. ‘acute suppurative pericarditis with effusion’.

In addition, we want to highlight an important diagnostic point pertaining to the electrocardiographic finding in the presented case. Persistent J-ST elevation, as opposed to dynamic four-stage pericarditic electrocardiographic changes (seen in idiopathic/viral pericarditis), is an important hallmark in patients with metastatic/invasive or suppurative/pyo-pericarditis indicating persistent perimyocardial irritation.<sup>[2-4]</sup> This finding can last for days to weeks in patients with secondary pericarditis (malignant or pyopericarditis) and in other words can represent a ‘Stage-1 Halt of ECG changes’ in patients, especially those presenting subacutely. Thus, if carefully correlated with symptom onset, it can serve as an important electrocardiographic clue for differentiation from idiopathic or viral pericarditis. Albeit in the present case the patient presented with acute onset of symptoms with initial ECG demonstrating classical J-ST elevation (Stage-1 changes), suggesting an early phase of perimyocardial irritation from pyopericarditis.

We also wanted to bring the readers’ attention to another important electrocardiographic sign of acute pericarditis i.e., Spodick’s sign, which refers to PR-depression in association with diffuse ST segment elevation and down-sloping TP-segments.<sup>[4,5]</sup> It is present in about 80% of patients with acute pericarditis, and is best visualized in lead II and lateral precordial leads (V4-6). It serves as an important feature to distinguish acute idiopathic pericarditis from acute

coronary syndrome. Spodick’s sign is highly specific for idiopathic pericarditis although may not be very sensitive for non-idiopathic pericarditis such as in the present case.<sup>[4]</sup> Its shallow prominence in the presented ECG again points to the fact that Spodick’s sign may not be an obvious diagnostic characteristic for these groups of patients.

An awareness of these characteristic electrocardiographic features may not only facilitate early diagnosis of acute pericarditis, but also may be extremely helpful in identifying the underlying etiopathogenesis and translating into improved clinical outcomes.

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