


# A Condition That Poses Diagnostic Challenges in The Emergency Department is The Presentation of Chest Pain Among Healthcare Professionals

Acil Serviste Tanı Zorluğu Oluşturan Bir Durum; Sağlık Çalışanları Arasında Göğüs Ağrısı

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## Dear Editor,

I have been following your journal with great interest for an extended period. The emphasis of your publication on practical applications, clinical observations, and field experiences, along with the meticulous selection process you uphold, serves as a guiding standard for many researchers and academics, including myself.

Drawing on my recent clinical observations and firsthand field experiences, particularly regarding the patient profiles we frequently encounter in the yellow zone of the emergency department, I wish to share these valuable insights with you.

## Introduction

Ischemic heart disease affected approximately 126 million individuals worldwide, accounting for 1.72% of the global population, according to the 2017 Global Burden of Disease data. Annually, 9 million deaths globally are attributed to cardiovascular diseases (1).

In emergency department presentations where ischemic heart disease is suspected, diagnostic approaches range from patient history and 12-lead electrocardiography to thoracic computed tomography angiography and cardiac magnetic resonance imaging. Risk stratification for patients presenting with non-specific chest pain directly influences decisions regarding discharge, admission, or the need for invasive coronary angiography (ICA). Lower risk scores facilitate timely discharge and prevent unnecessary advanced diagnostics and invasive procedures.

Due to its simplicity and accuracy, the HEART (History, Electrocardiogram, Age, Risk Factors, and Troponin) score is commonly used in emergency settings for assessing major cardiac pathologies. The HEART score classifies patients as low risk (0-3), intermediate risk (4-6), or high risk (7-11).

Studies have shown that the HEART score outperforms the Thrombolysis in Myocardial Infarction (TIMI) score and the Global Registry of Acute Coronary Events (GRACE) score in predicting outcomes for patients presenting with non-specific chest pain (2).

Waldo et al. developed the ACS2 score to predict acute coronary occlusion in cases of cardiac ischemia. This score assigns points based on ST elevation (2 points), the presence of angina (1 point), signs of heart failure (1 point), and shockable arrest rhythm (1 point). They reported that patients with an ACS2 score <2 had a coronary occlusion rate of <2%, while those with scores of 4 or 5 had an occlusion rate >90% (3).

Despite the widespread use of these risk scores, clinical observations indicate that they may not always be valid, especially for specific patient groups such as healthcare workers. Even patients classified as low risk according to scoring systems often undergo CAG before discharge due to an increase in the number of cases involving healthcare workers in recent months.

One primary reason for this trend is the social indication arising from concern for a colleague. Additionally, healthcare workers, with their detailed knowledge of clinical chest pain descriptions, may describe their symptoms with high specificity. Another contributing factor is that healthcare workers frequently witness cases of young cardiac ischemia, and combined with the stressful and demanding nature of their work environment, psychological factors may manifest as organic pain.

## Conclusion

Based on field observations and experiences, although the risk scores of healthcare workers admitted to the emergency department with a preliminary diagnosis of

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cardiac ischemia are low, repetitive laboratory tests and repetitive Electrocardiography (ECG) scans in the emergency department cause unnecessary loss of work, power and time for emergency service workers and the result does not change, and iCAG applications that give normal results are often performed. However, the reluctance of emergency physicians to discharge these patients without consulting cardiologists has significantly increased the number of these cases in recent months.

#### **KAYNAKLAR**

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