

## Brief Report

### Evaluation of the Troponin Measurements Results in Patients with Acute Coronary Syndrome; a Brief Report

Anita Sabzghabaei<sup>1</sup>, Abolfazl Nazarian<sup>2</sup>, Zahra Nazarian<sup>3\*</sup>, Narges Malih<sup>4</sup>, Majid Shojaee<sup>5</sup>

1. Department of Emergency Medicine, Loghmane Hakim Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

2. Department of Clinical Biochemistry, Zanjan University of Medical Sciences, Zanjan, Iran.

3. Faculty of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

4. Social Determinants of Health Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

5. Department of Emergency Medicine, Imam Hossein Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

\*Corresponding author: Zahra Nazarian; Department of Emergency Medicine, Loghmane Hakim Hospital, Tehran, Iran.

Tel: +989127404363; Email: zz.nazarian@gmail.com

#### Abstract

**Introduction:** The present study aimed to evaluate the rate of positive cases in measurement of serum troponin level in patients presenting to emergency department (ED) with complaint of chest pain who were dispositioned to coronary care unit (CCU) due to probable acute coronary syndrome. **Methods:** This cross-sectional study was carried out between September 2014 and September 2015 in ED and CCU of Shahid Modarres Hospital, Tehran, Iran. Using the archives, profiles of patients dispositioned from ED to CCU with diagnosis of acute coronary syndrome were evaluated. No age or sex limitation was imposed in this study. Data were extracted from the profiles and were recorded using a checklist consisting of points considered in history taking and results of troponin tests. Troponin tests were taken on admission, and 3, 6, 12, 18, 24, 36, 48, and 72 hours after that. A serum troponin level higher than 0.6µg/dL was considered positive. **Results:** 384 patients with the mean age of 62.34 ± 12.00 years (range: 30 -93) were included in the study (66.7% male). 230 (59.9%) patients with diagnosis of myocardial infarction, 149 (38.8%) with unstable angina, and 5 (1.3%) with other diagnoses were hospitalized. 252 (65.6%) of the patients had complained of typical chest pain. The most common accompanying symptom was shortness of breath present in 107 (27.9%) patients. Hypertension, hyperlipidemia, and diabetes were the most common accompanying diseases with 49, 35.2, and 30.5%, prevalence respectively. In total, 275 (71.6%) of troponin tests were reported to be positive. In the end, 362 (94.3%) patients were discharged from CCU with good general health and 22 (5.7%) died. **Conclusion:** Based on the findings of the present study, in the initial 72 hours of admission, troponin test result was positive in 70% of patients who were dispositioned to CCU with probability of cardiac chest pain, in 50% of which the test result was positive on admission.

**Key words:** Chest pain; troponin; acute coronary syndrome; biomarkers

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