



Efficacy of *Troponin-I* in the diagnosis of acute coronary syndrome: A Case Report

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Abstract:

A 35 years old male presented to outpatient department with symptoms of chest pain (retro sternal), sweating/ uneasiness from 24 hours. Patient with these complaints first went to other practitioner and was diagnosed as ?ACS with following ECG: PAST

HISTORY: The patient has nil medical history. ADDICTION: Smoker since 8 years and Alcohol intake daily since 10 years and also having h/o Tobacco consumption. CK-MB, TROPONIN-I is the cardiac specific biomarker for myocardial injury. Cardiac Troponin-I is a protein found in the cells of heart muscle. Level of cardiac Troponin-I can be measured by the health of the heart muscle. Can be detected in healthy asymptomatic individuals. Current risk stratification tools like Framingham, Euro score, Lipid Profile, hs CRP are not cardiac specific and can be heavily influenced by age. Myoglobin is a sensitive marker for muscle injury, but, elevated myoglobin has low specificity for

acute myocardial infarction. Troponin has more specificity than CK-MB in myocardial injury.

Keywords: chest pain, Cardiac, Troponin-I,

CASE REPORT

A 35 years old male presented to out patient department with symptoms of chest pain (retrosternal), sweating/ uneasiness from 24 hours.

PRESENT HISTORY

Patient with above complaints first went to other practitioner and was diagnosed as ? ACS with following ECG.

PAST HISTORY

The patient has nil medical history.

ADDICTION

Smoker since 8 years
Alcohol intake daily since 10 years
Tobacco +

FAMILY HISTORY

Father has been diagnosed Hypertensive/
IHD at the age of 68years

Mother has nil medical history.

ON EXAMINATION

Body temperature: 99⁰ F

Heart rate: 100/min

Blood Pressure: 126/84 mm hg

SPO2: 98%

Respiratory rate: 24/min

JVP: →

Systemic Examinations:

Respiratory system: Bilateral occasional
rhonchi +

Cardiovascular system: S1 S2 normal, No
murmurs

CNS: Clinically normal

Per abdomen: Soft, Non-tender, No
organomegaly

LABORATORY TESTS

Hb: 13.5gm

TC: 12500 cells/cu mm

DC: Polymorphs- 72%, Lymphocytes- 20%,
Monocytes- 0%, Eosinophils- 4%,
Basophils- 1%

RBS: 100 mg/dl

LFT: Normal (SGOT- 45)

RF/T: Normal.

Cardiac Enzymes:

CK-MB- 14.7

MYOGLOBINS- 504

TROP-I- 9 ng/L

PRO-BNP- 270

On Admission

After Thrombolysis

DISCUSSION

CK-MB, TROPONIN-I is the cardiac
specific biomarker for myocardial injury.
Cardiac Troponin-I is a protein found in
the cells of heart muscle.

Level of cardiac Troponin-I can be
measured by the health of the heart
muscle.

Can be detected in healthy asymptomatic
individuals also.

Current risk stratification tools like
Framingham, Euroscore, Lipid Profile,
hsCRP

are not cardiac specific and can be
heavily influenced by age.

Myoglobin is a sensitive marker for
muscle injury, but, elevated myoglobin
has low specificity for acute myocardial
infarction.

Troponin has more specificity than CK-
MB in myocardial injury.

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