

## Association of lymphocyte to monocyte ratio with in hospital and major adverse cardiac and cerebrovascular events in patient with acute ST segment elevation myocardial infarction

## Thesis

Submitted for Partial Fulfillment of Master Degree in **Critical Care Medicine** 

By
Ibrahim Samy Ibrahim Soliman

Critical Care Medicine Resident in Cairo University Hospitals

Under Supervision of

**Prof.** Dr. Wahid Ahmed Radwan Professor of Critical Care Medicine Faculty of Medicine – Cairo University

**Prof.** Dr. Ayman Nehad Moharram Associate Professor of Critical Care Medicine Faculty of Medicine - Cairo University

Dr. Walid Mohamed Kamel
Lecturer of Critical Care Medicine
Faculty of Medicine – Cairo University

Faculty of Medicine
Cairo University
2019

## **ABSTRACT**

Our study was conducted on 607 patients who were admitted to critical care department at Cairo University with acute ST segment elevation MI underwent primary PCI from 2011to 2018.

The aim of this study was to assess the association of lymphocyte-to monocyte ratio with in hospital major adverse cardiac and cerebrovascular events (MACCE).

In our study we measured total leucocytic count (TLC), lymphocyte to monocyte ratio (LMR), and lymphocyte to neutrophil ratio (LNR) on admission, day2, and day of discharge were tested and compared these results with MACCE, procedure complications, contrast induced-acute kidney injury (CI-AKI), and clinical indices (APACHE II, TIMI, GRACE, Killip, SYNTAX and SOFA scores).

Our study showed that low LNR and LMR, representing inflammatory markers, were related to Peri-procedure and in-hospital adverse events and could provide prognostic informations.

**Keywords:** Lymphocyte to monocyte ratio- major adverse cardiac and cerebrovascular events- acute ST elevation myocardial infarction