

## *Abstract*

### **Non-randomized observational study for patients presented with Acute Coronary Syndrome in young adults.**

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**Introduction:** Coronary artery disease (*CAD*) is a devastating disease precisely because an otherwise healthy person in the prime of life may die or become disabled without warning. When the afflicted individual is under the age of 40, the tragic consequences for family, friends, and occupation are particularly catastrophic and unexpected.

**Objectives:** assessment of risk factors, presentation of ACS in young patients & assessment of the coronary lesions documented by angiography.

**Design:** retrospective, prospective comparative and multi-center study.

**Patients:** The study involved 250 young patients between 18-40 years (110 patients retrospectively) and (140 patients prospectively) during the period between September 2011 and December 2012, presented with acute chest pain admitted to critical care department of Cairo university hospitals and other cardiac centers

**Methods:** All patients were subjected to full detailed history taking, risk factors assessment for CAD; DM, hypertension, current smoking, and family history of CAD followed by routine labs, Cardiac markers, lipid profile and coronary angiography.

**Results:** It was found that smoking, family history and dyslipidemia is the most prevalent and significant risk factors for ACS in young ( $p<0.001$ ). LAD artery is the most prevalent diseased vessel for ACS in the young, for group II 49% of the patients had LAD lesions then RCA then LCX artery.

**Conclusion:** smoking and dyslipidemia are a modifiable risk factors in young adults could be controlled.

**Key words:** ACS; CAD; young adults; risk factors ; smoking; family history; dyslipidemia; coronary angiography; LAD.