

Clinical characteristics of young patients with myocardial infarction: a single center experience

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Although Coronary Artery Disease (CAD) is an uncommon entity in young patients, it constitutes an important problem because of its devastating effect on patients' lifestyle. In addition, these patients may have different risk factor profiles, clinical presentations and prognoses than older patients. This study aims to evaluate the clinical characteristics of young patients with Myocardial Infarction (MI) presented to Teaching Hospital Kandy.

A retrospective cross-sectional study was conducted on patients aged less than 45 years with acute coronary syndrome. The study was conducted from January 2015 to March 2016 at Cardiology Unit Kandy. Data were obtained on demographics, laboratory test results and the treatment adopted.

A total of 100 patients (84% males) with a mean age of 39.84 ± 6.9 years were reviewed. The main risk factors were smoking (53%), Increased LDL [i.e. LDL $>100\text{mg/dl}$] (39%), diabetes (24%), arterial hypertension (19%), and family history of significant CAD (11%). There were 22% who were overweight (Body Mass Index (BMI) $23\text{--}25\text{kg/m}^2$) and 32% (BMI $\geq 25\text{kg/m}^2$) who were obese. There were 55% with inferior, 39% with anterior and 6% with lateral territory involvement. Typical pain was present in 73% of patients and the symptoms onset was as follows: 00:01 to 06:00, 20%, 06:01 to 12:00, 32%; 12:01 to 18:00, 27%; and 18:01 to 24:00, 21%. The study sample showed 6% developing cardiogenic shock and 5% developing arrhythmia following the MI but none developed any mechanical complications of MI. Single vessel disease was seen in 36% patients, whereas 17% had dual vessel disease, 14% had triple vessel disease and 14% had normal coronary arteries. Left main coronary involvement was seen only in 2% of patients.

Most of the young patients had fewer complications following MI. Main risk factors being smoking, lipid disorder and obesity all of which are modifiable which highlights the need for primary prevention in community.