Metabolic syndrome and coronary artery disease in young (≤ 40 years)

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Introduction: While the prevalence of metabolic syndrome (MS) has been rising alarmingly, its impact on coronary artery disease (CAD) in young Indians (≤ 40 years) has not been studied extensively.

Objective: To study the prevalence of metabolic syndrome and its various components in young Indians with CAD.

Methodology: We carried out a retrospective record analysis (Jan 2008 to Dec 2010) of 184 young patients of acute coronary syndrome admitted in our hospital. Apart from traditional coronary risk factors, focus was made on risk factors for MS as per International Diabetes Federation (IDF) definition as this definition is more suited to Indian scenario.

Results: The majority of patients were male (87.5 %). Mean age was 36.1 ± 4.2 years. The overall prevalence of metabolic syndrome was 26.6 %. Low HDL cholesterol (71.5 %) followed by large waist circumference (50 %), raised triglycerides (38.9 %), hypertension (32.1 %) and dysglycemia (29.3 %) were the most common individual components among cases. The mean number of components of metabolic syndrome was 1.7 ± 1.05. In addition, other notable risk factors present were dyslipidemia (87.2 %), smoking (75.5 %), and family history of CAD (41.3 %). Mean carotid intima media thickness (CIMT) measurement was 0.063 ± 0.014 cms with plaque in 10 %.

Conclusions: Our data indicates significant presence of metabolic syndrome among young Indians with CAD. Low HDL cholesterol, large waist circumference and raised triglycerides were most common individual components. Dyslipidemia and central obesity should be the primary targets for prevention of CAD in young Indians.