**Comprehensive levels of Serum Enzymes and Lipid Profile testing in MI and Stable Angina Subjects.**

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**Abstract:**

**Background:**  Cardiovascular diseases have over taken all other causes of mortality. Heart disease has been thus, labeled as the single largest killer in the world. CVD is the major cause of death, after the age of 40 years in men and 50 years in women. Initially the estimation of serum lipids like cholesterol and triglycerides were used to assess the risk of coronary heart disease. Numerous studies have shown that elevated levels of apolipoproteins (Apo B) are associated with increased cardiovascular risk. We advocate greater use of apolipoproteins measurements in clinical practice to identify patients at high risk in a variety of situations. There is paucity of literature on the enzyme levels and lipid profile in Stable Angina patients. Hence this particular group was included in this present study.

**Materials & Methods**: - The total numbers of subjects in this study were 141 divided into three groups. **Group I**- Patients with acute myocardial infarction, **Group II** - Patients with stable angina and **Group III** - were Healthy individuals (control) in age group between 45-75years. The following investigations were carried out **Enzyme assay:** Creatine kinase, Creatine kinase-MB, Aspartate amino transferase, Lactate dehydrogenase. **Lipid assay:** Total cholesterol, Triglycerides, HDL-C, LDL-C, VLDL-C, Apo A & Apo B.

**Results**: - Our study showed that there was a significant elevation in the serum enzymes CK-MB, total CK, AST and LDH in AMI patients in contrast to SA & Control subjects. In addition there was a significant increase in total cholesterol, triglycerides, LDL-C, VLDL-C and Apo B while there was a significant decrease in HDL-C & Apo A in AMI patients as compared to healthy controls.

**Conclusion:** There was significant elevation in serum enzymes, Apo B and decrease in HDL, Apo A in AMI. Thus elevation of CK-MB, Apo B could serve as reliable indicator for diagnosis of AMI and decrease in HDL-C, Apo A could serve as reliable indicator for prognosis of AMI.

**Keywords:** Cardio Vascular Disease (CVD); Acute Myocardial Infarction **(**AMI); High Density Lipoproteins (HDL); Low Density Lipoproteins(LDL); Creatine kinase(CK); Apo lipoproteins (A&B); Stable Angina (SA)