“ASSOCIATION BETWEEN TESTOSTERONE LEVEL AND CORONARY ARTERY DISEASE”
ABSTRACT
ABSTRACT

TOPIC : ASSOCIATION BETWEEN TESTOSTERONE LEVEL AND CORONARY ARTERY DISEASE

Aim:

The Aim of the study is to evaluate the difference between the Plasma Sex Hormone and the degree of Coronary Artery Disease in male patients undergoing Coronary Angiography and in matched controls.

Materials & Methods:

This study was performed at the Department of Physiology, Thanjavur Medical College, Thanjavur. The study group was from the General Community in and around Thanjavur. This study includes 80 male subjects, grouped into (Group A) 40 subjects were in control group and (Group B) 40 subjects were in study group. Ethical committee approval was obtained before initiating the study.

Exclusion criteria were the patients with diagnosis of Hypogonadism and Hypopituitarism or taking drugs that might affect sex hormone level, High CRP(>5mg/l), if they had previous Cardiovascular Event, Coronary or Periphery Atherosclerosis.

For this study, Serum Total Testosterone (ng/dL) level, FSH (mIU/ml) level and LH (mIU/ml) level were analyzed by ChemiLuminescence Immunoassay. Patients underwent thorough Clinical Examination and Overnight Fasting blood samples were taken from 40 male patients referred for diagnostic Coronary Angiography, because of symptoms suggestive of Coronary Artery Disease and 40
Control Group of same age group and sex. The Degree of Coronary Artery Stenosis was >50%. The results of Angiogram was reported by the Cardiologist, before the Hormonal assay.

Serum Total Testosterone (ng/dL) level, FSH (mIU/ml) level and LH (mIU/ml) level and BMI were statistically analyzed between Group A and Group B.

**Result:**

In the Coronary Artery Disease group, the level of Serum Testosterone showed the P-value 0.001 and was statistically significant. Level of Serum FSH was statistically significant and higher in the Coronary Artery Disease group than the normal coronary subjects (P-value 0.003). Level of Serum LH was statistically significant and higher in the Coronary Artery Disease group than the normal coronary subjects (P-value 0.001). BMI was statistically insignificant in the Coronary Artery Disease group than the normal coronary subjects (P-value 0.051). The association between low Testosterone and Coronary Artery Disease was found to be significant.

**Conclusion:**

This study reveals that Hypotestosteronemia is a risk factor for Coronary Artery Disease.

**Keywords:** Coronary Artery Disease, Coronary Angiography, Serum Total Testosterone, FSH, LH