

# **Correlation of Serum Cystatin C level with Coronary Artery Disease and Its Severity**

## **Abstract**

**Background:** Atherosclerosis is an important cause of cardiovascular mortality and morbidity in the world and its progression might be slowed in many people with appropriate lifestyle and drug interventions. Hence a lot of researches are targeting the atherosclerotic process and its mediators. Cystatin C is considered to be an active cysteine protease inhibitor found in all body fluids and expressed in all nucleated cells in the body and is a better marker of renal function when compared to creatinine. Elevated plasma levels of cystatin C is thought to be associated with increased risk of cardiovascular disease (CVD) and mortality in different populations. This may be due to the fact that it represents occult impaired renal function, which is associated with increased risk of CVD. However, in several studies, cystatin C has been associated with CVD even within normal ranges of eGFR.

**Aim:** To evaluate the relation of the serum cystatin C level and atherosclerotic burden in coronary arteries.

**Methods:** Our study included 80 patients of both sexes with known or suspected ischemic heart disease who were candidates for coronary angiography. Their serum Cystatin C level was measured using ELISA technique and correlated with coronary atherosclerosis using Gensini score.

**Results:** No association was found between coronary atherosclerosis severity and serum cystatin C level. There was also no difference in serum cystatin C level between patients presenting with acute coronary syndrome and those presenting with stable ischaemic heart disease.

**Conclusion:** The relation between serum cystatin C level and coronary atherosclerosis is still unclear.