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Spring 5-1-2021

## **ASSOCIATION OF ABO BLOOD GROUP WITH THE CORONARY ARTERY DISEASE AND SEVERITY**

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# ASSOCIATION OF ABO BLOOD GROUP WITH THE CORONARY ARTERY DISEASE AND SEVERITY

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**BACKGROUND:** Association between types of blood group and coronary artery involved in Ischemic heart disease among Indian population have not been studied extensively in the literature. To explore the effect of various blood group on CAD which is still uncertain.

**OBJECTIVES:** To look for association of ABO blood group with CAD, To Look for Severity of CAD with ABO Blood group, To look for association between types of blood group with the comorbidities, To Compare the Severity of CAD in A and Non A blood Group, To Compare the severity in O and Non O Blood group

**METHOD:** Patients that are newly admitted to the hospital with clinically suspected or known CAD scheduled for selective CAG were included in the study. This was a Prospective cohort study ,conducted in the Department of Cardiology, Kasturba medical college and hospital, Karnataka, Manipal. All consecutive patients who underwent angiogram between October 2019-August 2021 were enrolled. This was a time bound study and we recruited 1500 patients. Baseline data including Age, Height, Weight, BMI,SBP and DBP was collected. Comorbidities including Hypertension, DM, Smoking ,Alcohol, Prior history of MI, Family history of MI were collected. Laboratory investigations including HDL, LDL, TC were collected. The respective blood group of each patient was collected. Echocardiographic parameters mainly Ejection fraction(EF) was collected. Angiographic data such as presence and absence of CAD, LMCA stenosis,No of vessel involvement, Indication of 36 coronary angiogram were collected and Gensini score was calculated to assess the severity.

**RESULTS&CONCLUSION:** The present study revealed that there is an association between ABO blood group and CAD in which prevalence of CAD is more in 'A' blood group and lowest in O group. The diagnosis of three vessel disease and CAD was higher in patients with A blood group than the Non A group. The diagnosis of three vessel disease and CAD was higher in patients with Non O blood group than O group. Based on the Gensini score, severity of CAD was found to be more in A type of blood group. No correlation was found between ABO blood group and other comorbidities. In future, studies can be done to correlate the incidence of CAD in various blood types, with co-morbidities