# CORRELATION OF DEMOGRAPHIC PROFILE AND CLINICAL RISK FACTORS WITH SYNTAX SCORE TO PREDICT SEVERITY OF CAD IN PATIENTS UNDERGOING CABG

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*Background:*SYNTAX Score is a validated scoring system to quantify the complexity of CAD (coronary artery disease) based on Coronary angiogram findings. There is paucity of data as to what are the demographic and clinical factors associated with high SYNTAX score.

*Methods:*Retrospective study of patients with no history of prior revascularization who underwent CABG for left main and/or 3-vessel disease from October 2012 to January 2014. SYNTAX score was calculated using the online tool available at http://syntaxscore.com/. Patients were divided into two groups - group A with SYNTAX score ≤ 32 and group B having score ≥33. Demographic data including age, sex, diabetes mellitus, smoking status, hypertension and differential lipid profile were collected. Statistical analysis was done using chi-square test for nominal variables and t-test for continuous variables.

*Results:*Of all 67 patients, there were 42 patients in Group A versus 25 patients in Group B with males being 92% vs 83%, average age 63± 10.8 years vs 67.9 ± 9.9 years. Other parameters are defined in Table 1.

*Conclusions:*Diabetes mellitus and smoking had positive correlation with SYNTAX score of ≥33 and complex coronary artery disease. Family h/o CAD was statistically significant in patients with SYNTAX score ≤ 32.

**Table 1**

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| --- | --- | --- | --- |
| Variable | Group A,N=25 | Group B,N=42 | p\_Value |
| Hypertension, N (N%) | 23(92) | 37(88.1) | 0.613 |
| Diabetes, N (N%) | 4(16) | 14(33.3) | 0.0006 |
| History of Smoking, N (N%) | 5(20) | 9(21.4) | 0.002 |
| Family H/o CAD, N (N%) | 8(32) | 4(9.5) | 0.0203 |
| Dyslipidemia, N ( N%) | 23(92) | 42(100) | 0.062 |
| Total cholesterol (Mean± SD) mg/dL | 181.8±44.9 | 178.2±65.1 | 0.7905 |
| Triglycerides (Mean± SD) mg/dL | 148.8±80.7 | 157.4±110.5 | 0.7186 |
| LDL(Mean± SD) mg/dL | 110±40.2 | 101.8±59.6 | 0.2576 |
| HDL(Mean± SD) mg/dL | 42.4±9.2 | 43.7±16.4 | 0.6911 |