

Cardiovascular Risk Scoring by Framingham Risk Score in Hospitalized Patients with Chronic Kidney Disease

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Abstract

Background: Patients with chronic kidney disease (CKD) are more likely to have complications due to cardiovascular diseases (CVD). This research was performed to identify the profile of patients with chronic kidney disease attending in a tertiary care hospital and to estimate the risk of cardiovascular events according to Framingham's Risk Score. **Methods:** In this research, 100 patients who was diagnosed as CKD and admitted in the Chittagong Medical College Hospital, Chittagong, Bangladesh were enrolled. Estimated glomerular filtration rate (eGFR) was calculated with the MDRD formula. Cardiovascular risk factors were analyzed by Framingham's criteria and after compilation data were analyzed by SPSS-18. **Results:** Among 100 patients, regarding analysis of different socio-demographic variable, most of patients were under 60 years of age; males (56%) were more than females (44%). Framingham Cardiovascular Risk Score revealed that most of the male were at high risk group compared to female and regarding age distribution and risk score increasing age associated with higher risk score. Regarding different components of lipid profile with Framingham risk score, higher risk group had high mean total cholesterol (212.17mg/dl) and also low mean HDL level (38.58 mg/dl) and considering pattern of smoking with risk score, it was found that habit of smoking was associated with higher risk group ($P < 0.05$). Hypertension was not significantly associated with higher cardiovascular risk ($P = 0.061$). Patient with different stages of CKD with cardiovascular risk showed stage 5 CKD was 80%, stage 4 was 15% and rest 5 was at earlier stage and most were in low risk group (56%). Considering age, serum total cholesterol, HDL and eGFR with cardiovascular risk score, significant positive correlation was found with age and serum TC and insignificant negative correlation found with HDL and eGFR.

Conclusions: The predominant cardiovascular risk factors were age, male gender, smoking and high serum total cholesterol.

Biography:

Zahidul Mostafa completed MBBS from North East Medical College, Sylhet, Bangladesh on 2008 and Diploma in Cardiology (D-Card) from Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh in 2018. He joined to Govt. service of Bangladesh in 2010. Now workings as Assistant Professor, Cardiology at Cox's Bazar Medical College, Cox's Bazar, Bangladesh. He has more than 30 publications in national & international journals. His field of interest for research in preventive cardiology

Speaker Publications:

1. MSI Tipu Chowdhury, Kaled Mohammad Iqbal, Zahidul Mostafa, Md. Fakhru Islam Khaled, Sadia Sultana, SM Ear-E Mahbub. In Hospital Outcomes of Patients with Acute Kidney Injury Following Acute Coronary Syndrome in a Tertiary level Hospital. Ann. Int. Med. Den. Res. 2019; 5(6):ME01-ME07.
2. Zahidul Mostafa, SM Ear E Mahbub, Khaled Mohammad Iqbal, MSI Tipu Chowdhury, Fazlur Rahma, Harisul Hoque, Chayan Singha, Nilufar Fatema. Objective Evidence of Inducible Ischemia in Patients with Ischaemic Heart Disease by Global Longitudinal Strain During Dobutamine Stress Echocardiography. Ann. Int. Med. Den. Res. 2019; 5(6):ME08-ME13.
3. SM Ear-E-Mahbub, MSI Tipu Chowdhury, Zahidul Mostafa, Chayan Kumar Singh, SM Shahidul Islam, Khaled Mohammad Iqbal, Echocardiographic Evaluation of Left Ventricular Systolic Function in Diabetic Patients with Non ST elevated Myocardial Infarction after Percutaneous Coronary Intervention, Bangladesh Journal of Echocardiography 2019; 3(2): 201-5.
4. Md. Azharul Islam, Fazlur Rahman, Zahidul Mostafa, Chayan Kumar Singh, Nilufar Fatema, MSI Tipu Chowdhury, Jannatun Nahar, Dobutamine Stress Echocardiography in Ischemic Heart Disease, Cardiac Risk Stratification and Myocardial Viability: Review and Update, Bangladesh Journal of Echocardiography 2019;4(1): 235-7.

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