BACKGROUND Despite improvements in risk scoring of severity of CAD, there are still low-risk patients who experience CHD events.

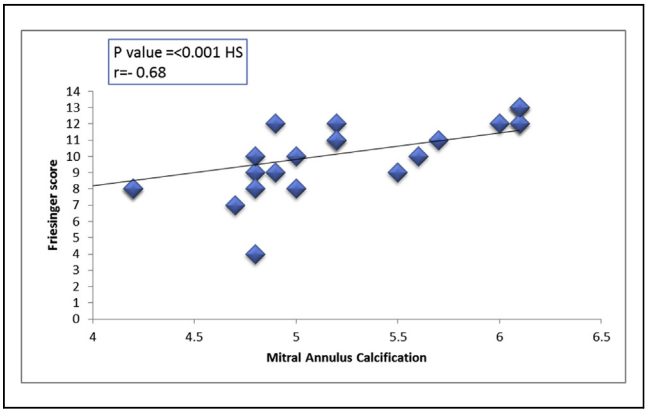
AIM OF STUDY To evaluate the correlation between the severity of Mitral Annular Calcification and the extent of CAD.

PATIENTS Fifty patients with suspected coronary artery disease and less than 65 years, referred for diagnostic coronary angiography for evaluation of chest pain between January 2015 and April 2017. The study subjects were divided into: Group I - Twenty patients with normal aortic and mitral valves; Group II -Thirty patients with mitral annulus calcification without congenital or rheumatic or dialysis were enrolled.

METHODS After consent, patients were subjected to history, clinical evaluation, lab, and ECG. Thickness of mitral leaflets and their motion were assessed. The severities of coronary artery disease were graded according to Friesinger score, which ranges from 0 to 15. Each of the three main coronary arteries is scored separately from 0 to 5. Score 0: No arteriographic abnormality, Score 1: Trivial irregularities (lesion from 1-29%), Score 2: Localized 30-68% luminal narrowing, Score 3: Multiple 30-68% luminal narrowing of same vessel, Score 4: 69-100% luminal narrowing without 100% occlusion of proximal segments, and Score 5: Total obstruction of a proximal segment of a vessel.

RESULTS Friesinger score is significantly higher in Group II (9.53 ± 2.36) compared to Group I (2.5±2.2) ($P < 0.001$). No significant difference between the groups in patient characteristics. Angiography showed a higher prevalence of CAD in patients in group II than in group I (88% vs. 68%, $p = 0.0004$), and a higher prevalence of left main CAD (14% vs. 4%, $p = 0.009$) and triple vessel disease (54% vs. 33%, $P = 0.002$).

CONCLUSION The association of mitral annulus calcification is strongly positively correlated with extend and severity of CAD.



CRT-100.68

Clinical Presentation and Outcomes of In-stent Restenosis in Second-Generation Drug-Eluting Stents Compared to First Generation Drug-Eluting Stents

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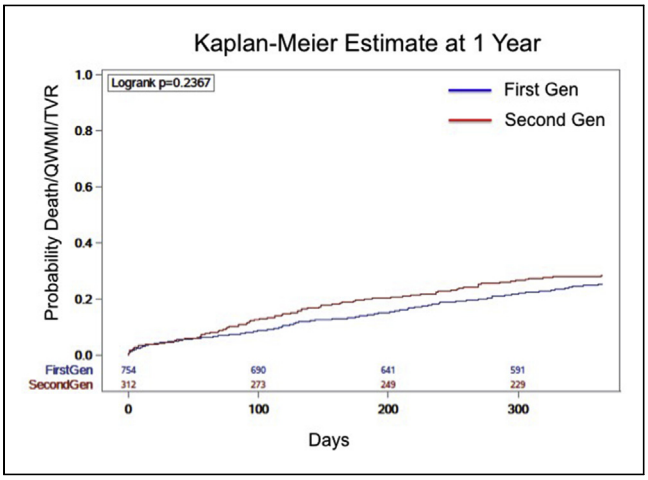
BACKGROUND Second-generation drug-eluting stents (DES) have demonstrated superiority over first-generation DES with respect to reduction in MACE and target lesion revascularization (TLR). The aim of this study was to compare the clinical presentation, lesion characteristics, and outcomes of first-generation DES-ISR to second-generation DES-ISR.

METHODS A retrospective analysis was performed on patients presenting with DES-ISR from 2003 to 2016. Baseline characteristics and prior stent history were obtained. The groups were stratified based on generation of failed DES.

RESULTS One thousand sixty-eight patients received treatment for DES-ISR. Seven hundred fifty-five (71%) had ISR of first-generation DES and 313 (29%) had ISR of second generation DES. There was no difference in baseline demographics between the groups. The second-generation DES-ISR had more diabetes mellitus (55% vs. 46%, $p<0.01$) and more renal insufficiency (26% vs. 18%, $p=0.02$). There was no significant difference in complexity of lesions between the groups, but failed second-generation DES were more often used initially to treat prior ISR (28% vs. 20%, $p<0.01$). There was no difference in presentation of stable angina or unstable angina, but the second-generation DES-ISR group presented more often with myocardial infarction (MI) (14% vs. 7%, $p<0.01$). There was higher rate of all-cause mortality at one year in second-generation DES (10% vs. 6%, $p<0.01$) but no difference in composite of death, Q-wave MI, and TLR (23% vs 19%, $p=0.13$).

CONCLUSION ISR of DES remains a challenge. Second-generation DES have not reduced the incidence of acute coronary syndrome in ISR, and myocardial infarction is actually higher. The reason for such differences may be related to worse comorbidities and higher utilization of second-generation DES to treat recurrent ISR, which likely contributes to differences in all-cause mortality.



CRT-100.69

Cardiac Patients More Likely to Survive to Discharge after Return of Spontaneous Circulation Following In-Hospital Arrest

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BACKGROUND There are limited data on in-hospital cardiac arrest, and hence we don't understand the predictors of outcome in this cohort. This study aims to understand how the admitting diagnosis affects the survival from cardiac arrest and then survival-to-discharge after return of spontaneous circulation.

METHODS Institutional review board of the Cleveland Clinic approved the retrospective cross-sectional study for patients who had in-hospital cardiac arrest from March 2015 to June 2016 at Cleveland Clinic-Fairview Hospital. Cardiac arrest/code blue (CA) protocol was activated on 153 patients during the study period of 15 months. Out of 153 patients, 21 were false activation and they were excluded. Data were collected using the electronic medical record for events before, during and after the CA. SPSS was used for statistical analysis.

RESULTS A total of 132 patients were included in the study. Demographic distribution showed median age of 69.5 years. 59% (78/132) were males, 51% (67/132) had diabetes, 78% (103/132) had