Application of SYNTAX score I, II and residual SYNTAX as predictors of long-term clinical outcomes after coronary artery bypass grafting

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Topic(s):
Cardiovascular Surgery – Coronary Arteries

Citation:
Background: The evaluation of coronary disease by SYNTAX score I (SSI) is used to grade coronary complexity. Following SSI, two other scores were developed: SYNTAX score II (SSII) and residual SYNTAX score (rSS). Nevertheless, there is still a lack of evidence about the prognostic significance of these scores among patients undergoing CABG.

Purpose: Our aim was to evaluate the relation of the SSI, SSII and rSS score with outcomes in a long-term follow-up after elective CABG.

Methods. This is a single center, registry-based study. Baseline SSI was calculated from patients undergoing CABG by interventional cardiologists. SSI results were considered as usual: < 23, 23-32 and >32. SSII and rSRR were then calculated and categorized in tertiles: <21.4, 21.4-29.4 and >29.4 for SSII and 0, 1-5 and >5 for rSS. Primary outcome was a composite of overall death, myocardial infarction, additional revascularization, or stroke (MACCE).

Results: Data were obtained from 559 patients. Median follow-up was 6 years (IQR: 4.9-9.8) and 170 events were documented. The Kaplan-Meier curves (figure 1) showed significant differences of MACCE in higher SSI, SSII and rSS (p=0.039, 0.033, <0.001 respectively). After multivariate adjustment, rSS, ejection fraction (EF) and age were found to be independent predictors of MACCE (p <0.001, 0.034 and 0.006, respectively).

Conclusion: In this sample SSI, II and residual were associated with the occurrence of events. However, just the rSS remained an independent predictor of MACCE together with age and EF.
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