APPROPRIATENESS OF MYOCARDIAL REvascularization ASSESSED BY SYNTAX SCORE II IN A CENTRE WITHOUT ON-sITE CARDiac SURGERY

Moderated Poster Contributions
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Background: The recently published SYNTAX score II (SSII) is a tool for objective, individualized prediction of 4-year mortality after percutaneous coronary intervention (PCI) or coronary artery bypass grafting (CABG). The purpose of the present study was to investigate whether indications for PCI or CABG based on the clinical judgment of PCI-operators without surgery on-site corresponds to the validated, objective and quantified decision-making that SSII proposes.

Methods: We retrospectively analysed 560 elective patients with three-vessel (81.6%) and unprotected left main coronary artery (18.4%) disease treated by PCI or referred to other institutions for CABG in a centre without cardiac surgery on-site (Banja Luka, Bosnia and Herzegovina) between January 2008 and May 2010. The actual treatment performed according to the clinical judgment was retrospectively compared with SSII recommendation.

Results: Out of 560 patients, 362 (64.6%) patients received PCI and 198 (35.4%) patients were referred for CABG. Based on an assessment of four-year mortality by the SYNTAX score II, CABG would have been the treatment of choice in 232/560 (41.4%) patients, PCI in 3/560 (0.6%) patients and there was equipoise for four-year mortality between CABG and PCI in 325/560 (58.0%) patients. Out of 232 patients in whom CABG was recommended by the SSII, 99/232 (42.7%) were referred for CABG and 57.3% of the patients (133/232) underwent PCI. In 426 patients, there was concordance between clinical judgment and SSII recommendations, but in the remaining 134 patients, there was discordance between clinical judgment and SSII recommendation. Overall mortality in the entire cohort of 560 patients at 4-year follow-up was 8.4%. Significant difference in observed mortality was found between patients with and without concordance (6.1% vs. 11.9%, long rank P=0.021). The SSII showed well performance in predicting mortality and discriminating between low- and high-risk patients (c-index=0.69, 95% CI=0.61-0.77).

Conclusion: This analysis suggests that the SSII may be very helpful in selecting appropriate revascularization strategy, especially in PCI centres without on-site cardiac surgery.