The effectiveness of revised EuroScoreⅡto predict short and long mortality after Transcatheter aortic valve implantation

Kenichi Chatani, MD; Mohamed Abdel-Wahab, MD; Ralph Toelg, MD; Volker Geist, MD; Mohamed Marwan, MD; Ahmad E. Mostafa, MD and Gert Richardt, MD

Heart Center, Segeberger Kliniken, Am Kurpark 1, 23795 Bad Segeberg, Germany

Background

It is very important to evaluate the risk of patients before performing Transcatheter aortic valve implantation (TAVI). A new model called EuroSCORE2 has been prepared from fresh date at the 2011 EACTS meeting. However few studies have investigated predicting outcomes by EuroSCORE2 after TAVI.

Objective and Methods

The aim of this study is to compare the predictive ability of the new EuroScoreⅡ to the established Logistic EuroScore(LES) and Simple additive Euro Score for 30day and cumulative 2year mortality in patients undergoing TAVI. EuroScoreⅡ was calculated in 238 TAVI patients and compared to the LES and simple additive EuroScore by ROC curve.

Results

We retrospectively analyzed 238 patients treated with TAVI using both commercially available devices (Medtronic CoreValve and Edwards Sapien XT) at a single institution. All baseline, procedural and follow-up data were prospectively entered into a dedicated institutional database.

30day and cumulative 2year mortality rate were 4.6% (11/227) and 32.0% (39/83). The prognostic value of Euro ScoreⅡ, STS score and LES were analyzed in ROC curve analysis for the prediction of 30 day(AUC:0.68 vs. 0.58 vs.0.60) and 2 year mortality (AUC:0.52 vs. 0.56 vs. 0.57).

Conclusions

EuroScore Ⅱ does not provide additional prognostic information beyond the established LES or simple additive EuroScore. We require new TAVI score to evaluate the risk of patients before TAVI.