TCT-216
Predictors Of Patient-Oriented And Device-Oriented Outcomes Among Patients Undergoing Primary Percutaneous Coronary Intervention
Masanori Tunwaki1, Giulio G. Stefani2, Lorenz Raber1, Henning Kellbaa1, Modrag C. Ostojic2, Andreas Baumbach3, David Tuller3, Clemens von Birgelen2, Marco Roffi2, Giovanni Pedrazzini2, Ran Kornowski1, Klaus Weber1, Dik Hek1, Christian M. Matter1, Thomas F. Laeher2, Bernhard Meier1, Peter Juni1, Patrick W. Serruys2, Manel Sabate2, Stephan Windecker1
1Bern University Hospital, Bern, Switzerland, 2Rigshospitalet Copenhagen, Copenhagen, Denmark, 3Department of Diagnosis and Catherization Laboratories, Division of Cardiology, Belgrade, Serbia, 4University Hospitals Bristol, Bristol, United Kingdom, 5LumioHospital, Zurich, Switzerland, 6Thoracumzentrum Twente & University of Twente, Enschede, Netherlands, 7Hopua Universitaires De Geneve (HUG), Geneva, Switzerland, 8Geneva University Hospital, Geneva, Switzerland, 9Professor of Cardiovascular Medicine, Tel Aviv University, Pehach Telka, Israel, 10Herzzentum Bodensee, Kœrzlingen, Switzerland, 11Institute of Social and Preventive Medicine, University of Bern, Bern Switzerland, 12University Hospital Zurich, Zurich, Switzerland, 13University Hospital Bern, Bern, Switzerland, 14University Hospital Bern, Bern, Switzerland, 15CTU Bern & ISPM, Bern, Switzerland, 16Thoracumenter-Eramus University, Rotterdam, Netherlands, 17University of Barcelona, Barcelona, Spain

Background: Treatment of STEMI has considerably evolved over the past 2 decades. However, predictors of adverse events after STEMI are mostly based on early studies without consistent use of reperfusion therapy, P2Y12 inhibitors, and drug-eluting stent implantation. We aimed to identify predictors of adverse events among patients with ST-elevation myocardial infarction (STEMI) undergoing contemporary primary percutaneous coronary intervention (PCI).

Methods: Individual data of 2555 patients from 2 primary PCI trials (EXAMINATION, N=1504; COMFORTABLE-AMI, N=1161) with identical endpoint definition and event adjudication were pooled. Predictors of patient-oriented (death or reinfarction) and device-oriented (definite stent thrombosis [ST] and target-lesion revascularization [TLR]) outcomes at 1 year were identified by multivariable Cox regressions analysis.

Results: Killip class III/IV was the strongest predictor of death or reinfarction (OR5.11, 95%CI2.48-10.52), ST-segment elevation myocardial infarction (STEMI) patients. The present study aimed at determine their characteristics, current management and prognosis.

Methods: We analyzed data collected in the “ORBI” registry, a 6-years prospective registry of STEMI patients admitted within 24 hours of symptoms/ onset to an interventional cardiology centre of Brittany (France). Main data about management, intra hospital outcome and prescription at discharge were compared between patients older (Group 1) and younger (Group 2) than 80, with a univariate analysis. We then calculated adjusted odds ratio for intra hospital mortality (group 1 vs group 2) when considering data about the patient, the delays and various aspect of revascularization.

Results: Among 5000 patients included, 550 (11%, mean age 84.6±3.3) constituted group 1, with a larger female prevalence (51 vs 20% in group 2, p<0.0001). Group 1 had a much longer median delay between onset of symptom and call for medical assistance (65 vs 45 min. in group 2, p<0.0001), and between admission and reperfusion (53 vs 45 min. in group 2, p=0.001). Table 1 presents data about the management in both groups, both in the acute phase and at discharge. Group 1 had a significantly higher intra hospital mortality (16.5 vs 4.1% in group 2, p<0.0001). Moreover, the adjusted odd ratio for intra hospital mortality (group 1 vs group 2) was 2.73 [95% confidence limits 1.83-4.07], p<0.0001.

Conclusions: Killip class remains the strongest predictor of death or reinfarction among STEMI patients undergoing primary PCI. Noteworthy, DES use independently predicts a lower risk of TLR and definite ST.

Conclusions: Octogenarian patients and more represent a large part of STEMI treatment, and mortality rate persists after adjustment for patient characteristics, delays of coronary reperfusion, and management of revascularization.