

Outcome (TAVR vs SAVR)	RR (95% CI)
Major Stroke (30 d)	0.89 (0.53- 1.51)
All Stroke (30 d)	0.85 (0.59- 1.22)
All cerebrovascular events (30 d)	0.94 (0.75- 1.17)
Major Stroke (30d to 1y)	1.02 (0.64- 1.61)
All Stroke (30d to 1y)	1.12 (0.78- 1.62)
All cerebrovascular events (30 d to 1y)	1.23 (0.91- 1.66)
Major Stroke (1y)	0.92 (0.69- 1.22)
All Stroke (1y)	0.92 (0.62- 1.37)
All cerebrovascular events (1y)	1.03 (0.79- 1.33)

CONCLUSION In our meta-analysis of RCTs comparing TAVR and SAVR, we show that the risk of major stroke, all stroke and all cerebrovascular events is comparable between the two groups.

CATEGORIES STRUCTURAL: Valvular Disease: Aortic

TCT-347

Neurologic Events in Patients Treated with Surgical Versus Transfemoral Transcatheter Aortic Valve Replacement: Insights from the PARTNER (Placement of Aortic Transcatheter Valves) Trial



Samir Kapadia,¹ Chetan Huded,² Susheel Kodali,³ Lars Svensson,⁴ E. Murat Tuzcu,⁵ D. Craig Miller,⁶ Vinod Thourani,⁷ Howard Herrmann,⁸ Michael Mack,⁹ Molly Szerlip,⁹ Raj Makkar,¹⁰ John Webb,¹¹ Craig Smith,¹² Jeevanantham Rajeswaran,¹³ Eugene H. Blackstone,¹³ Martin Leon¹⁴

¹Heart and Vascular Institute, Cleveland, Ohio, United States;

²Cleveland Clinic, Cleveland Heights, Ohio, United States; ³New York-

Presbyterian Hospital/Columbia University Medical Center, New York,

New York, United States; ⁴Cleveland Clinic Foundation, Cleveland,

Ohio, United States; ⁵Cleveland Clinic Abu Dhabi, Abu Dhabi, United

Arab Emirates; ⁶Stanford University, Stanford, California, United

States; ⁷Emory University Hospital Midtown, Atlanta, Georgia, United

States; ⁸University of Pennsylvania, Philadelphia, Pennsylvania,

United States; ⁹The Heart Hospital Baylor Plano, Plano, Texas, United

States; ¹⁰Cedars-Sinai Medical Center, Los Angeles, California, United

States; ¹¹Centre for Heart Valve Innovation, St. Paul's and Vancouver

General Hospital, Vancouver, British Columbia, Canada; ¹²New York-

Presbyterian Hospital/Columbia University Medical Center, New York,

New York, United States; ¹³Cleveland Clinic, Cleveland, Ohio, United

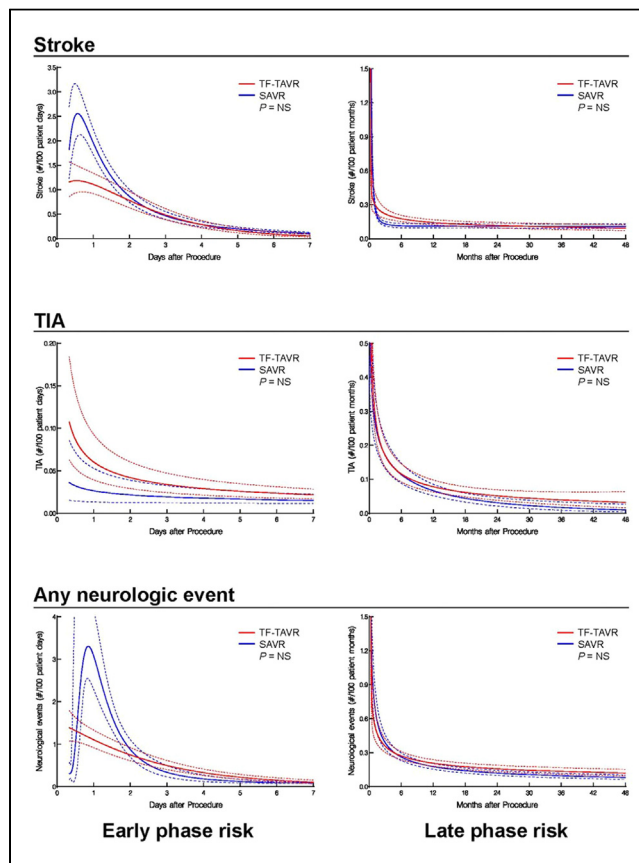
States; ¹⁴Columbia University Medical Center/New York-Presbyterian

Hospital, New York, New York, United States

BACKGROUND The relative risk of adverse neurologic events after surgical aortic valve replacement (SAVR) vs. transfemoral transcatheter aortic valve replacement (TF-TAVR) remains understudied.

METHODS Of a total of 5637 patients treated with SAVR or TF-TAVR from April 2007 to October 2014 in the PARTNER 1 (1802, 32%), PARTNER 2 (2403, 43%) and PARTNER 2 S3 (1432, 25%) trials and registries, we conducted a 1:1 propensity-matched analysis of 1204 pairs of SAVR and TF-TAVR patients. Stroke, transient ischemic attack (TIA), any neurologic event (stroke or TIA), and death were the study endpoints.

RESULTS Among 1204 propensity-matched pairs, comparing TF-TAVR vs. SAVR, the rate of in-hospital stroke (3.3% vs. 4.6%, $p=0.12$) was similar while in-hospital major stroke (1.9% vs. 3.5%, $p=0.02$), in-hospital death (1.8% vs. 4.3%, $p=0.0004$), and death <30 days (3.1% vs. 4.8%, $p=0.03$) were lower in the TF-TAVR group. With time-varying analysis, risk of early phase (0-7 days) stroke or any neurologic event in SAVR and TF-TAVR was similar, with highest risk in the first 72 hours. Additionally, both SAVR and TF-TAVR groups demonstrated a constant and similar low risk of stroke, TIA, or any neurologic event in the late phase (7 days-48 months post-procedure) (Figure).



CONCLUSION The risk of neurologic events after SAVR and TF-TAVR was similar in both the early and late phases, with the highest period of risk within 72 hours post-procedure for both groups.

CATEGORIES STRUCTURAL: Valvular Disease: Aortic

OUTCOMES AFTER PRIMARY PCI - I

Abstract nos: 348 - 352

TCT-348

Trends in Management and Outcomes of ST Segment Elevation Myocardial Infarction in Patients with Liver Cirrhosis in the United States: Results from the National Inpatient Sample



Parasuram Krishnamoorthy,¹ Akshaya Gopalakrishnan,¹ Jalaj Garg,² Janani Rangaswami,¹ Sanjog Kalra,¹ Vincent Figueredo,¹ D. Lynn Morris³

¹Einstein Healthcare Network, Philadelphia, Pennsylvania, United

States; ²Lehigh Valley Health Network, Allentown, Pennsylvania,

United States; ³Einstein Medical Center Philadelphia, Philadelphia,

Pennsylvania, United States

BACKGROUND There is paucity of data on the prevalence and clinical outcomes of Acute Myocardial infarction (AMI) in patients with liver cirrhosis. With increase in the prevalence of nonalcoholic steatohepatitis (NASH) which shares common risk factors for coronary artery disease, we aimed to describe the prevalence and outcome of AMI in patients with liver cirrhosis.

METHODS We utilized the National Inpatient Sample (NIS) from 2005 to 2010 to examine the trends in prevalence and clinical outcomes of AMI in cirrhotic patients. All patients greater than 18 years of age with a primary diagnosis of AMI were extracted using ICD-9 codes 410.xx. Patients with liver cirrhosis were identified using ICD-9 codes 571.xx. Demographic and cardiac risk factors were extracted. Primary

outcome was in hospital mortality and secondary outcomes were length of hospital stay and cost of hospitalization.

RESULTS A total of 777,980 hospitalizations were identified with a principal discharge diagnosis of AMI, representing an estimated 3,845,199 hospitalizations in the United States from 2005 to 2010 out of which 14,612 (0.38%) patients had liver cirrhosis. The overall prevalence of cirrhosis increased from 0.17% (n=1,095) in 2005 to 0.39% (n=2,357) in 2010 (P_{trend}<0.001). Cirrhotic patients underwent less percutaneous coronary interventions (22% vs 42%; P<0.0001), less thrombolytic agents infusion (0.5% vs 1.5%; p<0.0001) and less coronary artery bypass grafting (5.4% vs 9%; p<0.0001) compared to patients with no cirrhosis. However, the number of percutaneous coronary interventions increased from 19% in 2005 vs 24% in 2010 (p<0.001) in cirrhotic patients with AMI. Overall in-hospital mortality was high in cirrhotic patients (13.5% vs 6%; p<0.0001) compared to patients with no liver cirrhosis. However, in-hospital mortality decreased from 14.5% in 2005 to 12.1% in 2010 in cirrhotic patients with AMI (p=0.003). Cirrhotic patients with AMI had longer hospital days (7.1±0.1 vs 5.1±0.1; p<0.001) and increased hospitalization costs (\$65,110 ±\$1,529 vs \$56,881.1±76; p<0.001) compared to patients without liver cirrhosis.

CONCLUSION Presence of liver cirrhosis was associated with increased in-hospital mortality, longer hospital stays and higher hospitalization costs in patients with acute myocardial infarction.

CATEGORIES CORONARY: Acute Myocardial Infarction

TCT-349

Three-Year Major Clinical Outcomes between First-Generation versus Second-Generation Drug-Eluting Stents in Acute Myocardial Infarction: Propensity Score Matched Analysis



Yong Hoon Kim,¹ Seung-Woon Rha,² Ae-Young Her,³ Byoung Geol Choi,² Se Yeon Choi,² Jae Kyeong Byun,² Ahmed Mashaly,⁴ Won Young Jang,² Woo Hyeun Kim,² Eun Jin Park,² Ja Yeon Choi,² Jin Oh Na,² Cheol Ung Choi,² Hong Euy Lim,² Eung Ju Kim,² Chang Gyu Park,² Hong-Seog Seo,² Dong Joo Oh⁵
¹Kangwon National University Hospital, Chuncheon, Korea, Republic of; ²Korea University Guro Hospital, Seoul, Korea, Republic of; ³Kangwon National University, Chuncheon, Korea, Republic of; ⁴Korea University Guro Hospital, Seoul, Korea, Republic of; ⁵Korea University Guro Hospital, Seoul, Korea, Republic of

BACKGROUND There are few clinical outcome data comparing 1st- versus 2nd-generation drug-eluting stents (DESs) in patients(pts) with acute myocardial infarction (AMI) who underwent successful percutaneous coronary intervention (PCI). We investigated the 3-year major clinical outcomes between 1st- versus 2nd-generation DESs in AMI pts.

METHODS A total of 883 AMI pts were enrolled. Pts were excluded if they had: (1) bare-metal stent or other types of DESs implantation, (2) balloon angioplasty alone, (3) incomplete or invalid data. Finally a total of 749 eligible AMI pts who underwent PCI with 1st-generation DESs (n = 386) or 2nd-generation DESs (n = 363) were enrolled. A propensity score matched (PSM) analysis was performed using the logistic regression model and 2-matched groups (273 pairs, n = 546, C-statistic = 0.729) were generated. Cumulative major adverse cardiac events (MACEs) up to 3 years were compared between the two groups.

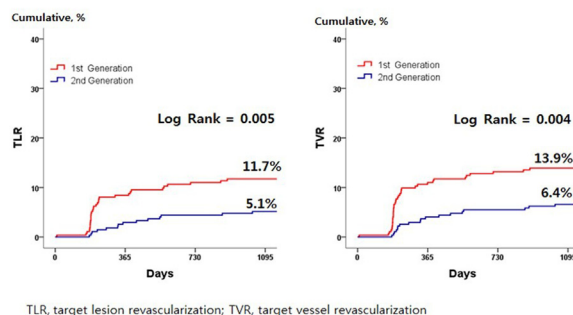
RESULTS During the 3-year follow-up period, the cumulative incidence of revascularization rates (TLR: hazard ration [HR], 2.40; 95% confidence interval [CI], 1.28-4.49; p = 0.006, TVR: HR, 2.24; 95% CI, 1.28-3.92; p = 0.005) and TLR-MACEs (HR, 1.87; 95% CI, 1.07-3.27; p = 0.029) and TVR-MACEs (HR, 1.68; 95% CI, 1.05-2.69; p = 0.031) were significantly higher in the 1st-generation DESs group compared with the 2nd-generation group after PSM.

Table. Cumulative clinical outcomes up to 3-year between first-generation and second-generation DESs

Variables	Entire patients			Propensity score-matched patients			Hazard ratio (95% C.I.)	p Value
	1st (n=386)	2nd (n=363)	p Value	1st (n=273)	2nd (n=273)	p Value		
Total death, n (%)	12 (3.1)	8 (2.2)	0.443	8 (2.9)	8 (2.9)	NS	1.00 (0.38-2.67)	0.996
Cardiac death, n (%)	5 (1.3)	4 (1.1)	NS	3 (1.1)	4 (1.5)	NS	0.75 (0.17-3.36)	0.709
Myocardial infarction (MI), n (%)	13 (3.4)	8 (2.2)	0.335	10 (3.7)	8 (2.9)	0.632	1.25 (0.49-3.17)	0.637
ST-segment elevation MI, n (%)	7 (1.8)	2 (0.6)	0.179	4 (1.5)	2 (0.7)	0.686	2.00 (0.37-10.9)	0.422
Revascularizations, n (%)	61 (15.8)	33 (9.1)	0.006	45 (16.5)	28 (10.3)	0.033	1.70 (1.06-2.72)	0.028
TLR, n (%)	41 (10.6)	15 (4.1)	0.001	32 (11.7)	14 (5.1)	0.006	2.40 (1.28-4.49)	0.006
TVR, n (%)	49 (12.7)	20 (5.5)	0.001	38 (13.9)	18 (6.6)	0.005	2.24 (1.28-3.92)	0.005
Non-TV, n (%)	16 (4.1)	17 (4.7)	0.720	12 (4.4)	14 (5.1)	0.688	0.86 (0.40-1.85)	0.695
Stent thrombosis, n (%)	7 (1.8)	2 (0.6)	0.179	6 (2.2)	2 (0.7)	0.285	3.00 (0.61-14.9)	0.178
TLR-MACEs, n (%)	46 (11.9)	20 (5.5)	0.002	34 (12.5)	19 (7.0)	0.030	1.87 (1.07-3.27)	0.029
TVR-MACEs, n (%)	61 (15.8)	30 (8.3)	0.002	45 (16.5)	28 (10.3)	0.033	1.68 (1.05-2.69)	0.031
Total MACEs, n (%)	73 (18.9)	41 (11.3)	0.004	52 (19.0)	36 (13.2)	0.063	1.51 (0.99-2.31)	0.058

DESs, drug-eluting stents; TLR, target lesion revascularization; TVR, target vessel revascularization; Non-TV, non-target vessel revascularization; CVA, cerebrovascular accident; MACEs, major adverse cardiac events; NS, not significant (>0.999)

Figure. Kaplan-Meier Curved Analysis for TLR and TVR up to 3 years



CONCLUSION During 3-year follow-up periods, 1st-generation DESs showed higher incidence of TLR, TVR, TLR-MACEs and TVR-MACEs rates in AMI pts who underwent successful PCI. However, the incidence of total death and MI were similar between the two groups.

CATEGORIES CORONARY: Acute Myocardial Infarction

TCT-350

The CAMI Score: A Novel Tool Derived From China Acute Myocardial Infarction Registry for Predicting the Risk of In-hospital Death of Acute Myocardial Infarction Patients



Rui Fu,¹ Chenxi Song,² Kefei Dou,³ Yuejin Yang⁴
¹Fuwai hospital, Beijing, China; ²Fuwai Hospital, Beijing, Sichuan, China; ³Fuwai Hospital, Beijing, China; ⁴Fu Wai Hospital, National Center for Cardiovascular Diseases, Beijing, China, Beijing, Beijing, China

BACKGROUND Accurate risk stratification of patients with acute myocardial infarction is important due to great variability in mortality risk. However, no risk prediction models up to date included a large cohort of Chinese patients, accounting for approximately one fifth of the world population.

METHODS Data were extracted from the China Acute Myocardial Infarction (CAMI) registry between January 2013 and September 2014. A total number of 23417 patients with AMI were identified and enrolled in our study (STEMI: 17622, NSTEMI: 5795). Primary outcome was in-hospital mortality. Patients were divided into a derivation cohort of 17563 patients for the development of a multivariate logistic regression model to predict in-hospital mortality risk, and a validation cohort of 5854 patients for validation of the model. A simplified integer risk score was also developed to allow for practical clinical use.

RESULTS A total of 16 variables were independently associated with in-hospital mortality and were included in our model: age, female, hypertension, hyperlipidemia, BMI, smoking status, systolic blood pressure, heart rate, serum creatinine level, white blood cell count, serum potassium level, serum sodium level, Killip classification, heart arrest, ST-segment elevation of ECG, anterior wall involvement. Within the derivation cohort, the C-statistic for our model was 0.83 (95% confidence interval [CI]: 0.82 to 0.84). The C-statistic for the simplified score was 0.80 (95% CI 0.79-0.82) with excellent calibration (Hosmer-Lemeshow p=0.10). Within the validation cohort, the score also showed good discrimination (C-statistic 0.80, 95% CI: 0.78 to 0.83, HL P = 0.34). Event rates increased significantly as the CAMI score, classified by tertile, increased in the derivation, validation as well as the whole cohort.