* RISK FACTORS ASSOCIATED WITH STROKE AFTER TRANSCATHETER AORTIC-VALVE REPLACEMENT: ON THE WAY TO PREVENT IT

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Introduction:

Transcatheter aortic-valve replacement (TAVR) is a safe and effective option for severe aortic stenosis treatment. Stroke is one of its most important complications. We aimed to explore stroke incidence after TAVR in a real-life population and compare it with TAVR trials and also tried to identify predictive factors for stroke.

Material and methods:

TAVR patients from 2010-2016 performed by endovascular and cardiovascular surgeons were followed for one year. Baseline characteristics, stroke incidence and possible associated factors were recorded and compared to those in SURTAVI and PARTNER2 trials.

Results:

179 patients. Baseline characteristics of the whole cohort: 62% females, mean age 80 years, 83% were hypertensives, 47.5% diabetics and 51% had dyslipidemias. 40.8% had coronary disease and 35.8% atrial fibrillation (AF) before TAVR. At follow-up, new-onset AF was detected shortly following TAVR in 8.4% and 2.8% in the first year. Total incidence of stroke was 6.7% (12); 8 were ischemic, 3 hemorrhagic and 1 TIA. 75% of them occurred in late period, while only 25% in the first 30 days. No factors were associated with stroke appearance, except for a trend to have more strokes among those being hypertensive (82% vs 100%, p=0.1).

UNIVARIANT ANALYSIS IN PATIENTS WITH NEW STROKE FOLLOWING TAVR

		NO	YES	p
	N(%)	167(93.3%)	12 (6.7%)	
Gender	M	63 (37.7)	5 (41.7)	0.78
	F	104 (62.3)	7 (58.3)	
Age (median)		80.2± 6.9	79.4± 5.9	0.53
HTA		137 (82)	12 (100)	0.10
DM		79 (47.3)	6 (50)	0.85
DLP		85 (50.9)	6 (50)	0.95
FA		61 (36.5)	3 (25)	0.42
Coronary D.		67 (40.1)	6 (50)	0.50
Smoker	Yes	6 (3.6)	0 (0)	0.61
	No	135 (80.8)	11 (91.7)	
	Form.	9 (5.4)	0 (0)	
Techniq	End	141 (84.4)	10 (83.3)	0.57
	Sur	26 (15.6)	2 (16.7)	
New onset FA		19 (11.4)	1 (8.3)	0.74

COMPARATION BETWEEN MAIN CLINICAL TRIALS AND OUR COHORT

	SURTAVI, 2017 (n=879)	PARTNER 2, 2016 (n=1011)	Seville Cohort (n=179)
Age	79.9	81.5	80
Stroke incidence	Early/Late	Early/Late	Early/Late
	4.5%/8.2%	6.4%/10.1%	1.7%/6.7%
Hypertension	92.8%	--	83%
Diabetes	34.4%	37.7%	47.5%
Dislipidemia	---	---	51%
Coronary disease	62.5%	69.2%	40.8%
Previous AF	28.1%	31%	35.8%
New onset AF	--	9.1/10.1%	8.4%/11.2%

STROKE SUBTYPE (N=12)

Conclusion:

In our sample, stroke incidence following TAVR is similar than in large clinical trials, despite the fact that real-life patients use to have higher vascular risk factors burden. Assessment by a Vascular Neurologist prior to procedure to control risk factors and optimize prevention could be the key to reduce post-TAVR stroke incidence. Biomarkers identification to predict high-stroke-risk profile would be desirable since there is a lack of stroke predictors in this population.