

Spontaneous coronary artery dissection and takotsubo syndrome: comparison of baseline clinical and angiographic characteristics and in-hospital outcomes

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Funding Acknowledgement: Type of funding source: None

Background: Spontaneous coronary artery dissection (SCAD) and Takotsubo syndrome (TTS) constitute two relatively common non-atherosclerotic causes of acute cardiac syndrome particularly frequent in women.

Methods: Herein we compared the baseline clinical and angiographic characteristics and in-hospital outcomes of 2 large prospective registries on SCAD and TTS.

Results: A total of 318 SCAD and 106 TTS patients were included (88% women). Patients in the TTS group were older (Table) and presented a higher prevalence of cardiovascular risk factors. Precipitating triggers were more frequent in TTS patients (42% vs. 56%, $P=0.009$) but emotional stress was more common in the SCAD group (25% vs. 15%, $P=0.037$). SCAD patients had higher troponin and creatine-kinase levels. The left an-

terior descending coronary artery was the most frequently involved vessel (44%). Left ventricular dysfunction (ejection fraction 57 ± 10 vs. $40\pm 10\%$, $P<0.001$) was more frequently in TTS patients. Major adverse cardiovascular events (including death, myocardial infarction, ischemia-driven revascularization, development of heart failure and stroke during hospitalization) (4.7% vs. 12.3%, $P<0.001$) occurred more frequently in TTS patients, that also developed more frequently heart failure ($<1\%$ vs. 10%, $P<0.001$) and atrial fibrillation (1% vs. 11%, $P<0.001$). No differences were found in the rate of stroke in the 2 groups.

Conclusions: TTS patients are older and present a higher prevalence of cardiovascular risk factors than SCAD patients. They also present a worse in-hospital prognosis with higher mortality.

Inhospital adverse events

Mean± SD, median (IQR), or n (%)	SCAD (n=318)	TTS (n=106)	P
Age (years)	53 (47–60)	74 (67–81)	<0.001
Death (all cause)	4 (1)	6 (6)	0.032
Heart failure	2 (1)	11 (10)	<0.001
Stroke	2 (1)	0 (0)	0.586
Atrial fibrillation	3 (1)	12 (11)	<0.001
Reinfarction	10 (3)	n/a	
Unplanned revascularization	12 (4)	n/a	
TVR	4 (1)	n/a	
Non TVR	1 (<1)	n/a	

SCAD: Spontaneous coronary artery dissection; TTS: Takotsubo syndrome; TVR: Target vessel revascularization. n/a: not applicable.