

# Psychocardiological Assessment in the Acute Phase of the Takotsubo Syndrome. Somatic and Depressive Disorders, Resilience and Illness Perception.

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**Aims** To analyse the clinical characteristics and the psychocardiological profile in Takotsubo Syndrome (TTS) patients in the acute phase of the syndrome.

**Methods** Prospective multi-center cohort study on TTS patients with regard to clinical characteristics, prevalence of somatic, depressive, panic, stress and anxiety disorders. Assessment of illness perception and resilience.

**Results** The evaluated 27 TTS patients were female with a mean age of 68 years ( $\pm 11.4$ ). Main clinical symptom leading to hospital admission was chest pain in 78% of patients. Main ECG finding was ST-segment elevation (44%) followed by T wave inversion (26%). The apical type of TTS was found in 60% of patients, followed by the combined type of TTS in 30% of patients. In 11.1% of patients (n=3) no stress event could be found, in the remaining 24 patients (88.9%) a stress event could be evaluated: an endogenous (emotional) stress event was found in 17 patients (63.0%), an exogenous (physical) stress event in 5 patients (18.5%) and a combined stress-event in 2 patients (7.4%). Somatic disorders were found in half of the patients (56%) followed by depressive disorders in 26% of patients. Moderate to high levels of illness threatening were found in 48% of patients and low to moderate resilience scores were found in 40% of patients.

**Conclusion** In summary it can be said, that patients with TTS present in the acute phase with a high prevalence of somatic disorders and relatively high prevalence of depressive disorders. Moderate to low resilience scores and moderate to high levels of illness threatening can be seen in the acute phase of TTS, reflecting the severity of the experience as an adverse life event.

## Level of Evidence Level III

There is no conflict of interest.



Clinical Assessment	
Age	68.0 $\pm$ 11.4 (42-85)
Cardiovascular Risk Factor	85.2 %
AHT	63.0%
Hyperlipidemia	63.0%
Diabetes Mellitus II	25.9%
Active Smoker	14.8%
History of Smoking	14.8%
Family History of CAD	14.8%
Symptoms	
AP	77.8%
dyspnea	55.6%
nausea / vomiting	14.8%
ECG changes	
ST-segment elevation	44.4%
T wave inversion	25.9%
pathological Q waves	11.1%
ST-segment depression	7.4%
Cardiovascular Complications	33.3%
Type of TTS	
apical	59.3%
combined	29.6%
midventricular	7.4%
basal	3.7%
Right Ventricular Involvement	18.5%

Clinical results and patients' characteristics (AHT=arterial hypertension; CAD=coronary artery disease; AP=angina pectoris; ECG=electrocardiogram; TTS=Takotsubo Syndrome).

Psychosomatic Assessment	
B IQ	39.3 $\pm$ 10.8 (19-61)
Consequences	5.8 $\pm$ 2.7 (1-10)
Timeline	5.4 $\pm$ 3.5 (1-10)
Personal Control	5.5 $\pm$ 2.4 (2-9)
Treatment Control	6.4 $\pm$ 2.7 (1-9)
Identity	4.7 $\pm$ 2.6 (1-10)
Concern	5.6 $\pm$ 2.9 (1-10)
Understanding	6.3 $\pm$ 2.9 (2-10)
Emotional Response	5.3 $\pm$ 3.1 (1-10)
Support from Surrounding	67.8% $\pm$ 30.6 (5-100%)
Impact of Emotional Stress	58.8% $\pm$ 31 (5-100%)
Level of Illness Threat	
moderate to high	48.1%
low	7.4%
Educational Level	
low	51.9%
high	14.8%
Resilience	69.0 $\pm$ 16.6 (23-89)
Resilience Level	
high	37.0%
low to moderate	40.7%

Psychosomatic Assessment in TTS patients within the acute phase of the disease.

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