BROKEN HEART SYNDROME

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Relevance: Broken heart syndrome is a stress-induced condition. It mimics acute coronary syndrome and is accompanied by reversible left ventricular apical ballooning in the absence of angiographically significant coronary artery stenosis. Due to their similarity, Takotsubo cardiomyopathy requires careful diagnosis and management for the best possible outcome.

Objectives: to estimate clinical and experimental data on the pathogenesis and etiology of the Broken Heart Syndrome (stress-induced condition), in order to understand the effect on the psychological and physiological state of the body.

Materials and methods: all the data published on InterTAKRegistry were collected from different hospitals all around the world (9 countries in general). The InterTAKRegistry currently consists of 1750 patients, of which 485 presented with stress leading to an apical ballooning episode. The remaining patients are in control group.

Results: Of 485 patients with an emotional event, 4.1% were identified to have 'happy heart syndrome', while the majority of patients (95.9%) had 'broken heart syndrome'. Patients often present with chest pain, have ST-segment elevation on electrocardiography (ECG), and have elevated cardiac enzyme levels consistent with myocardial infarction.

Conclusion: Takotsubo cardiomyopathy is an example of a psychological and/or physical stimuli within the brain that subsequently impact the cardiovascular system. It is now recognized that TTS predominantly affects postmenopausal women and is often triggered by an emotional or a physical stressor. Prognosis may be favorable if appropriate conservative medical treatment is promptly started. Current knowledge on susceptibility and predisposition already define distinctive characteristics of patients with takotsubo compared with myocardial infarction.

References

- 1. Happy heart syndrome: role of positive emotional stress in takotsubo syndrome. Jelena R. G., Annahita S. (2016)
- 2. Takotsubo Cardiomyopathy: Medical and Psychiatric Aspects. Role of Psychotropic Medications in the Treatment of Adults with "Broken Heart" Syndrome. Valeriy Z. (2019)
- 3. Takotsubo syndrome: How the broken heart deals with negative emotions. Klein C., Leipold S. (2019)