

PROGNOSIS OF TAKOTSUBO SYNDROME: A REVIEW OF THE LITERATURE

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Abstract: Takotsubo Syndrome (TS), initially considered benign, requires a prognostic review in light of recent discoveries. For this, the 'PUBMED' and 'SBV' databases were used, selecting 28 articles. Although TS generally demonstrates a good prognosis, high rates of in-hospital complications have been observed. An annual long-term mortality rate of 3.5% and in-hospital mortality of 1.8% were seen, with frequent complications such as acute coronary insufficiency and atrial fibrillation. TS is more prevalent in women and the emotional trigger is the most present in them, which has the best prognosis. Significant differences in outcomes were found between the sexes. Furthermore, comorbidities are associated with longer hospitalization times. This study highlights the importance of considering risk factors, triggers and complications when approaching patients with TS. Furthermore, it emphasizes the need for additional research to understand prognostic differences between the sexes.

Keywords: Cardiomyopathy; clinical outcome; Mortality.

INTRODUCTION

Takotsubo Syndrome (TS) or also known as stress-induced cardiomyopathy (MCS) is a reversible heart disease that occurs in patients without significant coronary disease (FINOCCHIARO G et al, 2015). However, these patients simulate an acute coronary syndrome (ACS) (NÚÑEZ-GIL IJ et al., 2016).

Regarding epidemiological aspects, its incidence is approximately 15 to 30 cases per 100,000 people. It is considered that approximately 3% of patients with suspected ACS actually have TS (ALASHI A et al., 2020). TS was first described in the 1990s and since then it has been considered a relatively benign condition. However, recently new aspects of TS have been revealed, such as its complications (BENTO D et al., 2019).

Thus, the objective of this study is to analyze what the literature already has regarding the prognosis of Takotsubo Cardiomyopathy (TMC), systematizing the scientific knowledge accumulated on the subject in order to promote space for new conclusions on the matter.

METHODOLOGY

This work is a literature review. The electronic database "PUBMED" and "SBV" were used with date restrictions between 2014 and 2024 and using the following terms; "Takotsubo Syndrome", "Prognosis" connected by the Boolean operator "and". The inclusion criteria comprised studies from 2014 to 2024, available free of charge, with "prognosis" in the title and which were in line with the scope of the study. Any duplicate study, study that was not observational and that only evaluated pathogenesis and/or treatment were excluded. The analysis was carried out primarily based on the titles, followed by the abstract and, finally, the full text. An initial amount of 187 articles was found with the search. After selection using the criteria above, 28 eligible articles were selected.

THEORETICAL FOUNDATION

In general, studies demonstrate that, in the medium term, TS is considered to have a good prognosis and the majority of deaths found during clinical follow-up are from non-cardiac causes, therefore, not related to the syndrome (BENTO D et al, 2019). In the long term, patients with TS have a more benign prognosis than those with ACS (PELLICCIA F et al., 2019). Even so, recent analyzes reveal that, despite a course that tends to be favorable, there are high rates of in-hospital complications, which shows that TS is not as benign as already described. (BENTO D et al., 2019).

From this perspective, from a total sample of 4,679 patients with TS analyzed, the following considerations were made; the annual long-term mortality rate was 3.5%, deaths within the hospital environment occurred in 1.8% of cases and there were 104 cases of recurrence. Despite this, the complication rate drew considerable attention; acute heart failure with shock in 19% of cases and malignant arrhythmias in 10% (PELLICCIA F et al., 2019). High rates of complications occur during hospitalization; Of 234 hospitalized patients with TS, 32.9% had complications, with acute heart failure and atrial fibrillation being the most common, in that order (BENTO D et al., 2019). These data reveal a possible focus of complications during the hospital stay.

Furthermore, the study of TS triggers is also relevant to the prognosis of patients and is divided into emotional, physical, neurological and unknown. Patients with emotional triggers have better survival compared to those with physical and neurological triggers, which have a much more unfavorable outcome (ALASHI A et al., 2020). It was found that TS is more prevalent in females and is the emotional trigger present in 95% of cases in this group (GHANDRI JR et al., 2018). From this perspective, it was discovered that women have a better prognosis than the opposite sex, which has higher incidence rates of severe heart failure, shock and hospital mortality. It is noteworthy that studies show a higher prevalence of smoking in men (PÉREZ-CASTELLANOS A et al., 2017). Not only that, males have a greater burden of comorbidities

associated with increased cardiogenic shock or mortality (VICENT LT et al, 2022). Despite this, among 2898 patients with TS investigated, smoking was considered an independent predictor of short-term mortality and hospital complications (REDFORS B et al., 2021). On the other hand, the burden of comorbidities already present in the patient is associated with an increase in hospitalization days after the diagnosis of TS (NAYERI A et al., 2021).

FINAL CONSIDERATIONS

The review in question demonstrates the importance of studies that analyze the prognosis of TS, since the more information there is, the better the healthcare approach provided to these patients will be to reduce unfavorable outcomes. Therefore, it was possible to verify that being male is a risk factor for worse outcomes. However, more in-depth studies of this sex must be carried out in order to elucidate the causes of this prognostic difference. Furthermore, it became clear that the TS trigger is relevant to predict the clinical evolution of the disease and it is a valuable tool that can and must be used in medical assessments. Furthermore, the work showed that the highest percentage of complications occur during hospitalizations. Such information can prepare professionals for possible complexities of the patient's clinical status. It is suggested to prepare professionals for the main potentially fatal complications that are common in patients with TS; acute heart failure and atrial fibrillation, as found in this review.

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