

## Sustained ventricular tachycardia in cardiogenic shock

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**Introduction:** Cardiogenic shock (CS) and the presence of sustained ventricular tachycardia (VT) are indicators of worse prognosis in hospitalized patients. In patients severely ill, like patients with CS, the registration of VT can be a stressful situation as well a life threatening condition.

**Purpose:** Evaluate the impact of cardiovascular previous history, clinical signs and diagnosis procedures at admission as predictors of VT in CS patients.

**Methods:** Single-centre retrospective study, engaging patients hospitalized for CS between 1/01/2014-30/10/2018. 222 patients with CS are included, 19 of them presented VT. Chi-square test, T-student test and Mann-Whitney U test were used to compare categorical and continuous variables. Multiple linear regression analysis was performed to evaluate predictors of new-onset AF in CS patients.

**Results:** CS patients without VT and with VT presented similar age, sex, cardiovascular history (namely arterial hypertension, diabetes, dyslipidemia, obesity, smoker status, alcohol intake, previous acute coronary syndrome, history of angina, previous cardiomyopathy), neoplasia history, cardiac arrest during the CS, clinical signs at admission (like heart rate, blood pressure, respiratory rate), blood results (hemoglobin, leucocytes, troponin, creatinine, C-Reactive protein), left ventricular ejection fraction and the culprit lesion. Curiously, history of previous stroke was higher in the group of VT in CS patients with a 6.9% ( $p = 0.021$ ). Curiously, VT in CS patient had not impact in mortality rates. Multiple logistic regression reveals that previous stroke was a predictor of VT in CS patients (odds ratio 4.337, confident interval 1.363-13.799,  $p = 0.013$ ).

**Conclusions:** History of previous stroke was a predictor of sustained VT in CS patients. The presence of this ventricular arrhythmia can have a hemodynamic impact, however, seems not influenced mortality rates.