INTRODUCTION

- Cardiogenic shock (CS) remains the most serious clinical complication and the leading cause of death for patients with an acute coronary syndrome (ACS).
- Despite recent studies suggesting possible declines in the risk of dying during hospitalization for patients with CS, which has been linked to advances in medical treatment and coronary revascularization techniques, in-hospital mortality associated with CS remains high.

AIM

- Determine characteristics and management of patients with an ACS complicated by CS.
- Determine predictors of development of CS during hospitalization and predictors of in-hospital mortality.

METHODS

- Retrospective study

  Population
  - 2064 patients consecutively admitted for ACS in a coronary unit over a period of 4 years.
  - Systolic blood pressure < 90 mmHg in the absence of hypovolaemia and associated with signs of poor peripheral perfusion.
  - In-hospital mortality

  Primary endpoint

RESULTS

<table>
<thead>
<tr>
<th>Cardiogenic shock was present in 111 cases (5.4%)</th>
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<tr>
<th>Demographics</th>
<th>CS (n = 111)</th>
<th>Without CS (n = 1953)</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td>Age (mean, range)</td>
<td>69.8 ± 13.2</td>
<td>63.5 ± 13.1</td>
<td>&lt;0.001</td>
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<tr>
<td>Female gender (%)</td>
<td>32.4</td>
<td>22.1</td>
<td>0.05</td>
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- Medical history:
  - Arterial hypertension:
    - Cardiogenic shock: 20.7 ± 23.3
    - Without CS: 29.6 ± 27.8
  - Diabetes mellitus:
    - Cardiogenic shock: 25.2 ± 27.8
    - Without CS: 27.8 ± 27.8
  - Hypertension:
    - Cardiogenic shock: 15.3 ± 15.0
    - Without CS: 15.0 ± 15.0

- Clinical presentation:
  - STEMI (%):
    - Cardiogenic shock: 73.0
    - Without CS: 48.0
  - Creatinine (mg/dL, mean ± SD):
    - Cardiogenic shock: 1.5 ± 0.7
    - Without CS: 1.1 ± 0.4
  - Hemoglobin (g/dL, mean ± SD):
    - Cardiogenic shock: 12.9 ± 2.0
    - Without CS: 13.9 ± 1.8
  - NT-proBNP (pg/mL, mean ± SD):
    - Cardiogenic shock: 8138.6 ± 9421.0
    - Without CS: 2582.8 ± 1599.6
  - CFR (mean ± SD):
    - Cardiogenic shock: 43.0 ± 6.4
    - Without CS: 51.3 ± 29.6
  - FEVE (mean ± SD):
    - Cardiogenic shock: 34.6 ± 11.0
    - Without CS: 49.5 ± 19.8
  - Multinessel disease (%):
    - Cardiogenic shock: 57.4 ± 47.9
    - Without CS: 0.006

- Table 1 - Baseline patients characteristics

- Table 2 - In-hospital treatment

CONCLUSION

- According to the literature, our review showed that CS in the context of ACS is associated with a high mortality.
- We identified clinical markers that are associated with the development of CS and may spot patients at risk earlier.
- Absence of coronary revascularization remains an independent predictor of mortality in CS.

The authors have no conflicts of interests to declare.