






Clinical characteristics associated with negative outcomes in patients with chronic limb-threatening ischemia

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Introduction: Chronic limb-threatening ischemia (CLTI) is a serious global health issue characterized by high mortality rates and an increased risk of amputation.¹ Patients with multiple comorbidities have poor clinical outcomes, particularly regarding major adverse limb events (MALE) and amputation-free survival (AFS).^{2,3} The aim of our study was to investigate clinical characteristics and outcomes in patients admitted due to CLTI at University Hospital Centre (UHC) Zagreb.

Patients and Methods: We conducted a retrospective analysis of patients admitted for CLTI at UHC Zagreb between May 2021 and June 2022. The main objective of the study was to examine AFS, MALE and overall one-year mortality among patients with CLTI during 12-month follow-up.

Results: A total of 149 patients (66.4% male, average age 68.3 years) were included in the study. Most patients had some cardiovascular comorbidity, including arterial hypertension, diabetes mellitus and coronary artery disease (CAD) (78.5%, 47%, and 24.2%, respectively). Chronic renal insufficiency (CRI) was documented in 21.5% patients, while 8.1% had end-stage renal disease (ESRD). At admission, 79 patients (53%) were anemic (hemoglobine (Hb) levels were not available in seven patients). Presence of arterial hypertension or diabetes mellitus did not show a statistically significant difference in main outcomes. Significantly higher one-year mortality rates were observed in patients with CAD, anemia, CRI and ESRD ($p < 0.001$, $p < 0.05$, $p < 0.001$, $p < 0.001$, respectively), compared to patients without these comorbidities. Similar results were observed for AFS rates ($p < 0.05$, $p < 0.001$, $p < 0.001$, $p < 0.001$, respectively). Patients with anemia also had significantly higher rates of MALE and re-admission for CLTI ($p < 0.05$, $p < 0.05$, respectively), compared to those with normal Hb levels.

Conclusion: Multiple comorbidities in CLTI patients are associated with poor clinical outcomes in terms of mortality and limb preservation. This is particularly pronounced in patients with anemia. Future research is needed to determine the importance and thresholds for optimizing anemic CLTI patients.

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LITERATURE

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