

Impact of Congestive Heart Failure on Short-Term In-Hospital Outcomes in Below the Knee Amputation

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Background

Diabetes mellitus and circulatory disorders, like congestive heart failure (CHF) and coagulopathies, have been shown to be leading causes of below the knee amputation (BKA). There is little research evaluating the outcome of patients who have CHF compared to those who do not and undergo below the knee amputation.

Methods

This retrospective study involves adult patients (18+) who were diagnosed with CHF and underwent BKA. 24410 patients were selected based on International Classification of Disease, 10th edition (ICD-10) procedure codes for BKA from the Nationwide Inpatient Sample database for 2016-2018. Patients were excluded if clinical identifies (race, gender, age) were missing. Postoperative inpatient mortality was the primary outcome evaluated. Data analysis was also performed to assess length of stay and total charges.

Results

Patients with CHF who underwent BKA had a 3% ($p < 0.001$) higher chance of death during hospitalization. Patients stayed, on average, 3.29 days longer (95% CI 2.886-3.694, $p < 0.001$) and that average cost were \$36070.63 (95% CI \$29564.09-\$42577.18, $p < 0.001$) more.

Conclusion

Patients with CHF had higher mortality rates, longer length of stay and higher costs than those without CHF who underwent BKA. Physicians should strive for preventive and prophylactic care to prevent patients from requiring BKA. If surgery is necessary, control of CHF parameters and close monitoring is necessary pre and post surgery. Due to patients' increased mortality risk due to CHF, surgery should be considered after all conservative measures have been explored.

Disclosures

The authors declare that they have no conflicts of interest.

