

**Impact of CHF on Postoperative Outcomes of Internal Fixation of Intertrochanteric Femur Fractures using Intramedullary and Sliding Hip Screws: An ACS NSQIP Analysis 2008-2016**

**Introduction:** Many studies have examined the effects of Congestive Heart Failure (CHF) on several different orthopedic procedures; however, the effect of CHF on internal fixation for intertrochanteric fractures (IFIF) has not been well analyzed. Internal fixation is currently the most common surgical procedure for patients who suffer intertrochanteric fractures; therefore, this study seeks to evaluate the postoperative outcomes of patients with CHF undergoing IFIF.

**Methods:** The ACS NSQIP database was queried via CPT codes for IFIF using intramedullary and sliding hip screws performed between 2008 and 2016. Patients were categorized based on whether they had CHF and 1:1 propensity score matched to control for age, gender, and estimated probability of morbidity. Demographics, comorbidities, and 30-day post-operative outcomes were compared. A binary logistic regression analysis was used to evaluate association with postoperative complications.

**Results:** Compared to non-CHF patients, patients with CHF had a longer hospital stay, and higher estimated probabilities of morbidity and mortality. Overall, there were no significant differences in postoperative complications between the two groups. However, of the postoperative complications analyzed, CHF patients were more likely to experience unplanned intubations and failure to wean from a ventilator. CHF patients also experienced a higher postoperative mortality rate.

**Conclusion:** CHF was found to be a risk factor for unplanned intubations, failure to wean from a ventilator, and associated with increased mortality. Although post-operative complications as a whole did not differ, CHF should still be considered as an important factor for pre-operative risk assessment when selecting candidates for IFIF.