Session/Poster# Presenter

C05 Michelle Zhu
College of Medicine Student

Advisor(s): Dr. Qais Naziri, Orthopaedic Surgery & Rehabilitation Medicine

Patients with Congestive Heart Failure Experience Higher Rates of Surgical and Medical Complications Following Total Knee Arthroscopy

Introduction: Congestive Heart Failure (CHF) is a condition in which the heart cannot pump enough blood to meet body demand, potentially leading to a wide range of adverse effects including dizziness, fatigue, shortness of breath, and fluid retention. The clinical outcomes of patients who undergo knee arthroscopy (KA) while diagnosed with CHF remain poorly understood. The objective of this study is to identify the impact of CHF on two-year postoperative outcomes following KA.

Methods: The New York Statewide Planning and Research Cooperative System was queried to identify patients who underwent KA procedure with at least a two-year follow-up. Controlling for age, sex, race, and obesity, differences in postoperative outcomes in a cohort diagnosed with CHF were compared to a control. Demographics and rates of two-year postoperative surgical and medical complications were compared between the two cohorts.

Results: A cohort of 82 CHF patients and non-CHF patients were identified. Non-CHF patients and CHF patients had similar sex (54.9% vs. 59.8%), age (71.0 vs. 71.0 years), and obesity (15.9% vs. 15.9%) distributions. CHF patients were more likely to have experienced surgical complications, transfusions, medical complications, acute renal failure, sepsis, and hospital mortality (all, $p<0.05$). CHF was found to be an independent predictor of increased rates of surgical complications (OR=1.969, 95%CI=1.038 - 3.734, p=0.038), transfusions (OR=2.519, 95%CI=1.700 - 6.194, $p<0.001$), acute renal failure (OR=3.071, 95%CI=1.556 - 6.059, p=0.001), sepsis (OR=2.257, 95%CI=1.110 - 4.588, p=0.025), and hospital mortality (OR=7.150, 95%CI=2.339 - 21.854, $p<0.001$).

Conclusion: CHF patients who underwent KA experienced higher rates of surgical complications, transfusions, medical complications, acute renal failure, sepsis, and hospital mortality. These findings should be considered when preparing patients for KA and priming providers for such potential complications post-operation.