Impact of CHF on Postoperative Outcomes of Patients Undergoing Knee Arthroscopy: 2-Year Minimum Surveillance

Elver Shei-Wah Ho1, Nabil Khan1, Ryan Kong1, Nicolás Andrés Valentino1, Chibuokem Prince Ikwuazom1, Dillon Sedaghatpour1, Yi-Loong Colin Woon1, Qais Naziri1, Siddharth Sharma1
1The State University of New York Downstate Health Sciences University, Brooklyn, NY, USA

Congestive heart failure (CHF) occurs when the heart cannot pump enough blood to meet body demand, resulting in: dizziness, fatigue, shortness of breath and fluid retention. The clinical outcomes of patients with CHF who undergo knee arthroscopy (KA) remains poorly understood.

The New York Statewide Planning and Research Cooperative System was queried to identify patients who underwent KA procedure with at least 2-years of follow up. Controlling for variables such as age, sex, race and obesity, differences in post-operative outcomes in a cohort diagnosed with CHF were compared to controls. Demographics and rates of 2-year postoperative surgical and medical complications were compared between the 2 cohorts.

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 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) (Table 1).

CHF patients undergoing KA experienced higher rates of surgical and medical complications. These findings should be considered to optimize patients prior to undergoing KA and prepare providers for such potential complications post-operation.