

A26

Abdullah Uddin B.A

Advisor(s): Qais Naziri M.D.

Co-author(s):

Higher Economic Burden Among Patients with Interstitial Lung Disease Undergoing Primary Total Hip Arthroplasty: Insights from a National Database

Introduction: Total hip arthroplasty (THA) is one of the most commonly performed surgical procedures in the United States. Higher healthcare costs and longer hospital lengths of stay can lead to increased burdens on the healthcare system. This study sought to assess the relationship between interstitial lung disease (ILD) on lengths of stay and costs among patients who underwent primary THA.

Methods: A retrospective cohort study was performed using the National Inpatient Sample database of primary THA occurring between 2010 and 2021. The primary exposure was diagnosis of ILD. Confounding variables were basic demographics, baseline health status, and surgical facility characteristics. The primary outcomes studied were hospital length of stay and admission cost. Univariate analyses were performed to assess differences between cohorts. Multivariable log-linear regression was used to evaluate the association between ILD and hospital length of stay and admission cost among patients who underwent THA.

Results: Our study identified 819,733 cases of THA that fulfilled study inclusion criteria, of which 1,320 (0.16%) had a diagnosis of ILD. Many patients in both cohorts had female sex, White race, and Medicare insurance. Many of the procedures were performed in large, urban-teaching, and private, non-profit hospitals. On multivariable analysis, ILD patients had 1.14 times higher (95% CI 1.11-1.17; $p<0.001$) odds of longer stays and 1.07 times higher (95% CI 1.04-1.10; $p<0.001$) odds of higher costs compared to non-ILD patients.

Conclusion: Patients with ILD undergoing THA experience significantly longer hospital stays and higher admission costs compared to those without ILD, even after adjusting for confounding factors. Future research should focus on preoperative risk stratification and targeted interventions to improve outcomes for THA candidates with ILD.