Paper #41

Dislocation Rates Following Direct Anterior Approach Total Hip Regardless of Spinopelvic Deformity

John V. Horberg, MD, **Benjamin R. Coobs, MD**, Aneel Jiwanlal, MD, Christopher J. Betzle, MD, Susan G. Capps, PhD, Joseph T. Moskal, MD, FACS

Introduction: The use of the direct anterior approach (DAA) for total hip arthroplasty (THA) has increased in recent years. This is due, in part, to proposed albeit debated benefits including lower risk of dislocation. The purpose of this study is to understand the dislocation rate in a non-selective, consecutive cohort of patients undergoing THA via the DAA including those at high risk for instability due to spinopelvic pathology.

Methods: We retrospectively reviewed all patients undergoing THA via the DAA between 2011 and 2017. The primary outcome was dislocation at minimum two-year follow-up. We then stratified patients by known risk factors for dislocation, including spinopelvic pathology, and performed an in-depth analysis of dislocations.

Results: 2,831 hips in 2,205 patients were included. Mean age was 64.9 (Range: 24-96), BMI was 29.2 (Range: 15.1-53.8) and 1,595 (56.3%) were female. There were 11 (0.38%) dislocations within one year of the index operation and 13 (0.45%) total dislocations at terminal follow-up. Five dislocations (38.4% of dislocations; 0.17% overall) required revision. The dislocation rate for surgeons who had completed their learning curve compared to those who had not was 0.15% vs. 1.11%, respectively. There were 666 patients with an established diagnosis spinopelvic pathology or prior surgical instrumentation, of which 2 (0.30%) dislocated and neither required revision.

Conclusions: In a non-selective, consecutive cohort of patients undergoing THA via the DAA, the risk of dislocation is low, even amongst patients with lumbosacral stiffness secondary to spinal instrumentation or degenerative changes. Our data suggests that utilizing the DAA in high-risk patients may be protective against dislocation without the need for additional constraint or the use of newer bearing constructs that lack long term outcome studies. The inclusion of seven surgeons in our study further suggests that these results are generalizable.

Notes