

INCIDENCE AND RISK FACTORS FOR NEUROPATHY FOLLOWING PRIMARY TOTAL HIP ARTHROPLASTY

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BACKGROUND: Post-surgical neuropathy is a rare, but potentially devastating complication following total hip arthroplasty (THA). Previous literature suggests that prevalence of post-operative neuropathy ranges from 0.2% to 1.9% in primary THA cases.

AIMS: This study identifies potential risk factors for neuropathy after primary THA at a tertiary orthopedic institution.

METHODS: Patients who developed neuropathy following THA between January 1, 1998 and December 31, 2013 were identified by electronic hospital records and matched with 2 controls. The controls were matched by surgical date. Patient and surgical variables were reviewed using data from patient charts.

RESULTS: There were 81 neuropathy cases identified out of 39,056 primary THAs (0.21%) performed at our institution during the study period. The cases were matched with 162 controls. Patients older than 50 years were found to be less at risk for developing neuropathy (OR 0.38). Conversely, patient history of smoking (OR 3.45), lumbar spine disease or surgery (OR 2.29), and spinal stenosis (OR 4.31) were associated with increased risk. Surgeries between 10AM to 1PM (OR 1.71) and 1PM or later (OR 3.98) were also found to increase risk.

CONCLUSIONS: The study demonstrates neuropathy is a rare complication following primary THA at our institution. Afternoon surgeries should be investigated, as personnel fatigue or shift change may be a cause for increased risk. Spinal stenosis and lumbar spine disease, and smoking history should be closely monitored to inform the patient and surgeon for the potential increased risk of post-operative neuropathy following THA.