

Title:

Perioperative gait analysis after total hip arthroplasty: Does outpatient surgery compromise patient outcomes?

Introduction:

There has been a continuing trend towards decreasing the length of hospital stay for patients undergoing total hip arthroplasty (THA). Outpatient procedures, discharging patients on the same day as surgery, have now become possible yet little research has been done to examine the impact this might have on patients during early recovery. We aimed to investigate the impact of discharge time on gait and patient-reported outcomes in the early post-operative period.

Methods:

We measured gait velocity, stride length, single-limb support and single-limb support symmetry preoperatively, at discharge from the hospital, and two-, six- and 12-weeks postoperatively. Participants also completed the Timed Up and Go and a series of questionnaires (WOMAC, SF-12, Harris Hip Score and pain VAS) at each visit.

Results:

Thirty-six participants undergoing a direct anterior THA with a single surgeon were enrolled in this study. Sixteen participants were discharged on the same day as surgery (outpatient group), while 20 stayed at least one night in hospital (inpatient group). We found pain at time of discharge to be significantly lower in the outpatient

group compared to the inpatient group ($p=0.04$). We found no other differences between the groups for any gait, patient-reported or surgical outcomes ($p<0.05$).

Conclusion:

Following a direct anterior total hip arthroplasty, patients who stayed overnight had significantly more pain at discharge than those discharged as outpatients. There were no differences in gait or patient-reported outcomes between groups.

Interdisciplinary Reflection:

This study incorporates aspects of kinesiology, surgery, rehabilitation and health policy.