Examining the Prevalence of Falls and Future Falls Risk in Adults One-Year After Total Hip Arthroplasty

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Background

• One in three older adults fall each year
• People with hip osteoarthritis have an elevated annual falls prevalence of 45%.
• Hip osteoarthritis can be treated with total hip arthroplasty (THA)
  • the effect of THA on falls risk has received limited attention

Objectives:
1. Estimate the prevalence of falls in the 12 months following THA surgery
2. Evaluate future falls risk at one year after surgery.

Relevance to physiotherapy:
• Prominent role of physiotherapy in THA post-operative rehabilitation
• Assessment and treatment of adults at risk for falls in general
Methods

• Design: cross-sectional
• Participants: 50+ years of age recruited at their one-year follow-up for THA surgery.

• The Falls Risk For Older People in a Community Setting Questionnaire (FROP-Com) was used to assess falls risk

• Physical performance tests:
  ➢ Step Test.
  ➢ The 30-Second Chair Stand test (30CST)
  ➢ Gait velocity
  ➢ Timed Up-and-Go (TUG)

• Results on physical measures compared with average scores for community dwelling older adults to determine the percentage of participants below
Results

• 29 (21.5%) people had at least one fall
  ➢ The greatest number of falls occurred 6-12 months after surgery.

• Step Test
  ➢ 83.5% had deficits in operative leg

• TUG
  ➢ 77.6% had deficits

• 30CST
  ➢ 65.7% had deficits

• Gait speed
  ➢ 21.6% walked slower than 1m/s
Conclusions

• Falls prevalence was lower than the general risk for older adults and individuals with hip osteoarthritis before surgery.

• One year after surgery, the majority of participants presented with deficits in strength, balance and gait that would increase the likelihood of a fall.
  ➢ These factors are potentially modifiable with physiotherapy