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

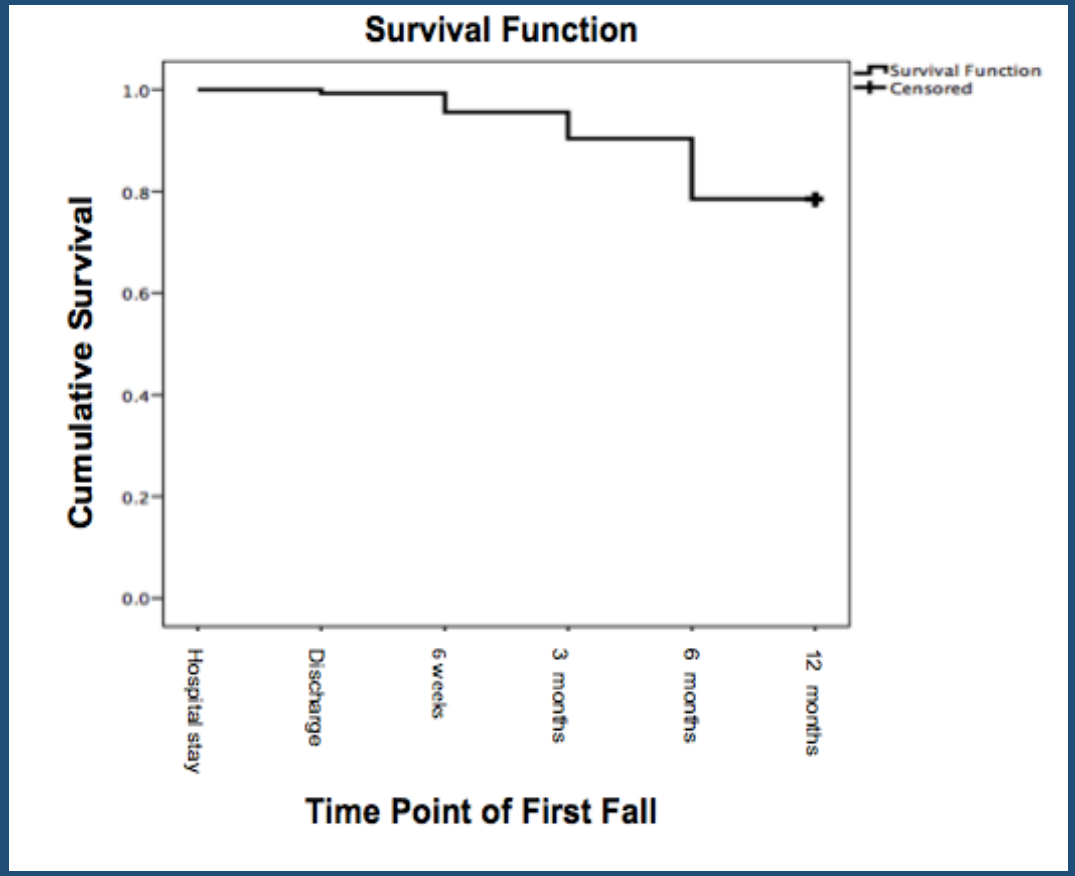
- 29 (21.5%) people had at least one fall
  - ➢The greatest number of falls occurred 6-12 months after surgery.

- 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