Total Hip Replacement Rehabilitation: are we meeting patient expectations?

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Background

Total hip replacement surgery (THR) has transformed the care of patients with end stage joint disease, providing both pain relief and improvements in function and quality of life for its recipients (Jones et al., 2000, Montin et al., 2008). In 2013 37,466 primary total hip replacement surgeries were performed in Australia (Registry, 2013). While THR surgery is tremendously successful in terms of pain relief for patients, outcome studies report some residual limitation to impairment and functional limitations in these patients post operatively that can persist up to a year following a total hip replacement (Trudelle-Jackson and Smith, 2004, Di Monaco et al., 2009). Patient satisfaction post-surgery has been significantly correlated with several specific self-rated items including absence of residual symptoms and absence of functional limitations (Noble et al., 2006).

The optimum rehabilitation after total hip replacement still lacks consensus throughout the literature and no evidence based guidelines exist worldwide on this topic. There is limited evidence to support the effectiveness of physiotherapy post total hip replacement (Coulter et al., 2013), and little to support physiotherapy supervised exercise programs in favour of home exercise program (Lowe et al., 2009). It is essential that we address the vital components of a rehabilitative program post THR surgery to ensure the optimal outcome for the patient after this increasingly common procedure.

Project Summary

Objective: to explore the efficacy of two rehabilitation programs in the early phase of rehabilitation (<8wks) after THR in the adult population;

- a supervised (centre based) program and
- an independent (home-based) program

Method

- 114 patients scheduled for THR were consented for the study.
- 98 were randomised to:
  - the usual supervised group circuit class (n=55: x1 wk/4wks, including ROM, functional and low resistance exercises plus gait retraining)
  - or the unsupervised home group (n=42: home exercises and gait program performed independently as prescribed in written & pictorial instructions)

Efficacy was assessed by comparing primary outcomes of quality of life and functional scores which were patient reported (WOMAC and SF36) taken at 5, 12 and 26 weeks.

Secondary outcome was the Timed up and Go Test (TUG).

Results

- 98 completed the trial with an average age of 62yrs
- 8 were lost to follow up completely (8.2%)
- WOMAC scores improved in both groups (lower score)
- mean [95% CI] supervised group 22.6 [16.65; 28.55] and home group 23.1 [16.52; 29.70], with no between group difference (p=0.617)
- The 95% CI for total difference in WOMAC scores was [-6.75; 5.73]. This did not include the prospectively defined minimum clinically significant difference of 8 points (primary outcome).
- SF36 and TUG scores also demonstrated improvements in scores over time, with no between group differences (p=0.139 SF36M, p=0.688 SF36P, p=0.797 TUG).
- Mean [95% CI] TUG time at the final assessment was 8.5 sec [7.37; 9.70], normative data exists for community dwelling older adults (60-69yrs) reporting a mean [95% CI] score of 8 sec [7.9] for both males and females.

Conclusion

In this trial, supervised exercise sessions were not clinically or statistically different to a unsupervised home exercise program in improving all patient outcomes, and continued until 6 months after THR surgery. This should be considered when prescribing a program after THR which is looking to ensure improving function and health outcomes and hence satisfaction for the patient.

References


