

## Dynamic Balance and Functional Performance in Total Hip Arthroplasty

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**Abstract :** Background: With the perceived pain and poor function experienced following total hip Arthroplasty (THA), patients usually feel un-satisfied. Methods: Thirty patients with THA (group I) and thirty indicated for arthroplasty but weren't operated on yet (group II) participated in the study. The mean age was  $54.53 \pm 3.44$  and  $55.33 \pm 2.32$  years and BMI  $35.7 \pm 3.03$  and  $35.73 \pm 1.03$  kg/m<sup>2</sup> for group I and III respectively. The Berg Balance Scale (BBS), Timed Up-and-Go (TUG) and Stair-Climbing (SC) tests were used for assessment. Assessments were conducted four weeks pre- and post-operatively and three months post-operatively with the control group being assessed at the same time intervals. The post-operative rehabilitation involved hospitalization (1st week), home-based (2nd-4th weeks), and outpatient clinic (5th-12th weeks) programs. Results: group I had significantly lower TUG and SC time compared with group II four weeks and three months post-operatively. Moreover, the BBS scores increased significantly and the pain scores and TUG and SC time decreased significantly four weeks and three months post-operatively compared with four weeks pre- operatively in group. But no significant differences in BBS scores four weeks and three months post-operatively in group I compared with group II. Interpretation/Conclusion : Patients with THA still have defects in proprioception, so they needs more concentration on proprioception training.

**Keywords :** dynamic balance, functional performance, hip arthroplasty, total

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