Abstract:

Purpose: The current study was conducted to investigate the effect of exercise therapy program on improving dynamic balance in cases of lower limb ulcers. Subjects: Forty patients were included in this study. Their ages ranged from 40 to 60 years. They were randomly divided into two equal groups in number. Procedures: Group (A) received 6 weeks of treatment with Tai chi exercise (IB program) for 15 to 40 min 3 times per week while group (B) received their standard medical treatment only. The dynamic balance was measured for all patients by using Biodex balance system just before the study then also after 6 weeks of treatment application for both eyes opened and eyes closed. Results: This study showed significant statistical difference in balance performance between experimental and control group irrespective to overall stability index. Overall stability index was significantly decreased (p ≤ 0.05) and the balance performance were significantly improved (p ≤ 0.05) in the exercise therapy group with eyes opened and highly significant improved in the exercise therapy group with eyes closed. Conclusion: The suggested exercise program produced objective improvement in balance disturbance and is considered as a gold therapeutic tool in the management of dynamic balance in lower limb ulcers as the rate of falling can be decreased in those patients.

Keywords:
Lower limb ulcer; Dynamic balance; Tai chi exercise & biodex stability system.