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# Efficacy of Aerobic Exercise on Postural Balance and Quality of Life in Osteoporotic Women Post Bariatric Surgery

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**Abstract:** The bariatric procedures were related to calcium and vitamin D deficiencies, which prompted to osteoporosis and brown tumours after bariatric surgery. Osteoporosis consequently reduces their balance and quality of life. Purpose of the study to assess the viability of aerobic exercise on postural balance and quality of life in osteoporotic women post bariatric surgery. Forty pre-menopausal osteoporotic women post bariatric surgery, volunteered to participate in this study, their age were ranged from 35 to 45 years, classified randomly into two groups equal in number; study group received sub-maximal aerobic exercises program graded treadmill walking and stepping exercises, three times per week for 12 weeks in addition to their routine medical treatment for osteoporosis, while control group received the routine medical treatment for osteoporosis only. Balance ability of all subjects was measured by timed up and go test (TUG) and four square step test (FSS). The ECOS-16 (European compromise osteoporosis questions) was developed with the aim of measuring health-related quality of life in osteoporotic women. The participants were tested twice; before and after the training program. The results of this study revealed high significant differences ( $P$  values  $< 0.01$ ) between both groups in favor to study group. The present study revealed that sub-maximal aerobic exercise program can improve postural balance and quality of life in osteoporotic women post bariatric surgery.

**Key words:** Aerobic exercise, Postural balance, Quality of life, osteoporosis, Bariatric surgery.

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