ORIGINAL ARTICLE

Iranian Quarterly Journal of Breast Disease 2016; 9(2).

Comparison of Thoracic Kyphosis and Lumbar Lordosis in Breast Cancer Survivors Compared to Healthy Women

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[DOR: 20.1001.1.17359406.1395.9.2.3.7]

Abstract

Introduction: Mastectomy and movement limitations after breast cancer surgery, may cause changes in body posture by inducing disorders in body statistics and limitation of movements in spine, which alters Quality of Life. Defining these deformities may develop strategies to combat it. The aim of study is comparing Thoracic kyphosis and lumbar lordosis in breast cancer survivors compared to healthy women.

Methods: Study population consisted of 21 breast cancer survivors and 21 healthy age matched women referred to Seyed-khandan physiotherapy institute. A 60-cm-long flexicurve was used to measure the size of the curve in thoracic and lumbar spines and kyphosis and Lordosis angle were calculated. Mean difference of these angles and their correlated factors were studied.

Results: Mean age of participants was 48.7 (±7.1) years old. There was no significant difference in demographic characteristics between two groups. Mean Lordosis in patients and healthy women were 50.74 and 48.38 respectively ($p = 0.1$) and mean degree of kyphosis were 55.28 and 40.59 in two groups. ($P<0.001$) Age and Body Mass index (BMI) showed positive correlation with kyphosis.

Conclusion: Breast cancer survivors experience more increased thoracic kyphosis compared to healthy women. Considering the correlation of increasing age and BMI with severity of this complication, Rehabilitation interventions for correction body posture and strengthening of muscles and suitable diet and physical activity for Gaining fitted BMI is suggested.

Keywords: Breast Cancer, Kyphosis, Lordosis, Rehabilitation.