The Effect of Vitamin D and Exercise on Balance in Postmenopausal Women- NCT03608488

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Protocol:

In this study postmenopausal women aged 50 to 70 years were included. Participants who had vitamin D3 level below 10ng/dl randomized to 3 groups as following:

Group I- Vitamin D replacement (50.000 IU/per week, for 8 weeks)

Group II- Core and balance exercises for 8 weeks.

Group III- Vitamin D replacement (50.000 IU/per week, for 8 weeks) plus core and balance exercises

Participants with vitamin D3 level above 30ng/ml were designed as control group (group IV). Core and balance exercises were given them as well for 8 weeks.

Evaluations were performed at baseline and 8 weeks after treatment.

Berg balance scale, postural stability tests, fall risk assessments and Nottingham Health Profile were used.

Statistical Analysis:

The IBM SPSS Statistics 22 (SPSS IBM, Turkey) program was used for statistical analysis. The normality of the parameters was assessed with the Shapiro-Wilk test. Mean, median, standard deviation, and frequency was used as descriptive statistical methods. The Student's t-test and ANOVA were used to make comparisons between the parameters in each group that showed normal distribution. The Mann-Whitney U and Kruskal Wallis test was used to make comparisons between the parameters in each group that lacked normal distribution. The data were assessed at $p < 0.05$ significance level and 95% confidence interval.