The effects of Pilates training on mobility and respiratory muscle strenght in patients with ankylosing spondylitis: A pilot study

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Background: Ankylosing Spondylitis (AS) is a chronic, inflammatory rheumatic disease that effects primarily axial-spine. Reduction of flexibility and mobility is important factors that can cause muscle weakness, impairment quality of life, reduction of exercise tolerance and pulmonary capacity with the progression of AS. The purpose of this study was to investigate the effects of pilates exercises on mobility, quality of life and respiratory muscle strength in patients with AS.

Methods: Seventeen patients were included who were aged between 18-55 years and got diagnosed according to Modified New York criterias. Pilates training were performed as a group therapy during 8 weeks. Respiratory muscle strength was assessed by maximal inspiratory pressure (MIP) and maximal expiratory pressure (MEP). Thorax expansion was measured as axillar, subcostal and epigastric by tape measure. To evaluate disease activity, spinal mobility and quality of life, we used Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Bath Ankylosing Spondylitis Metrology Index (BASMI) and Ankylosing Spondylitis Quality of Life Questionnaire (ASQoL), respectively. Exercise capacity was assessed by 6 minutes walk test. Assessments were repeated in the first session and at the end of 8th week.

Results: MIP score, thorax expansion (except for epigastric assessment), BASDAI, BASMI, ASQoL and 6 minutes walk test assessments showed statistically significant improvements at week 8 ($p < 0.05$).

Conclusion: The results of this pilot study suggest pilates exercises as an effective method to improve respiratory muscle strength, physical capacity, mobility and quality of life. Further research with more participants and with a control group should be performed to demonstrate the effects of pilates exercises in patients with AS

Speaker Biography

Songül Baglan Yentur continues her PhD from Gazi University, Turkey and has completed master programme from the same university. She is a research assistant at Gazi University, Turkey.

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