

# The Importance of Physical Therapy in Patients with Ankylosing Spondylitis

Suzana Petkovic<sup>1</sup>, Snjezana Novakovic-Bursac<sup>2</sup>, Nenad Prodanovic<sup>3</sup>, Boris Prodanovic<sup>4</sup>

<sup>1,2,4</sup>Institute for Physical Medicine and Rehabilitation "Dr Miroslav Zotovic" Banja Luka

<sup>3</sup>University Clinical Center of Republic of Srpska  
Bosnia & Herzegovina

<sup>1</sup>[suzalena2@hotmail.com](mailto:suzalena2@hotmail.com), <sup>2</sup>[snjezanab@yahoo.com](mailto:snjezanab@yahoo.com), <sup>3</sup>[nenad.prodanovic@kc-bl.com](mailto:nenad.prodanovic@kc-bl.com), <sup>4</sup>[bock-y@hotmail.com](mailto:bock-y@hotmail.com)

**Abstract:** INTRODUCTION: Ankylosing spondylitis is a chronic, progressive rheumatic disease which primarily affects the axial skeleton with variable involvement of peripheral joints, usually manifests between 20 and 40 years of age and it's 3-5 times more common in man. The prevalence of the disease amounts 0.5-1% and it's in positive correlation with the frequency HLA-B27. According to the recommendations of the ASAS and EULAR, the optimal management of patients with AS requires a combination of pharmacological and non-pharmacological modalities. Physical therapy is applied at all stages of the disease, while respecting the principles of individualism.

OBJECTIVE: To examine the impact of the implementation of physical therapy on functional ability and disease activity and to examine the impact of disease duration on functional ability in patients with AS.

MATERIALS AND METHODS: The study was conducted as a cross-sectional study and included 40 patients who spent physical therapy at the Institute for Physical Medicine and Rehabilitation from January 2014 to May 2016. As measuring instruments we used BASFI (Bath Ankylosing Spondylitis Functional Index) and BASDAI (Bath Ankylosing Spondylitis Disease Activity Index). The data analyse was performed with SPSS 19 statistical package. From parametrics tests we used T-test paired samples and Pearson's correlation test. As the level of statistical significance of differences was taken common value of  $p < 0.05$ .

RESULTS: 40 patients included in the study, 25 (65%) were males and 15 (35%) were females. The average age of respondents was 56.6 and the average duration of disease was 12.7. The average value of BASFI on admission was 5.26, on discharge 4.52, while the average value of BASDAI on admission was 5.16, on discharge 4.13. T-test showed a statistically significant improvement value of BASFI ( $t(39)=3.92, p=0.000$ ) and BASDAI ( $t(32)=7.75, p=0.000$ ) and the Pearson's correlation test showed that there is strong positive correlation between disease duration and value of BASFI at admission ( $r=0.90$ ).

CONCLUSION: Implementation of physical therapy significantly improves functional ability and decreases disease activity in patients with ankylosing spondylitis.

**Key words:** ankylosing spondylitis, physical therapy, functional ability, disease activity