

# **COMPARISON OF RADIOLOGICAL INDICES IN PATIENTS WITH ANKYLOSING SPONDYLITIS SUMMARY**

Ankylosing spondylitis (AS) is a chronic inflammatory rheumatological disease characterized by spinal inflammation, usually in the form of sacroiliitis and spondylitis which may lead to syndesmophyte formation and ankylosis in the further course of the disease. Definition of activation, progress, prognosis, and situation of disease is difficult in patients with AS. The radiographic changes of AS have diagnostic importance. Furthermore, radiography shows the damage in AS. Thus, progress of disease can measure by performing radiographic evaluations at intermittent periods. Therefore, the radiographic index method which using in AS is very important in terms of reflecting the situation of disease. For this purpose, a several index has been developed. This indices are Bath AS Radiology Index (BASRI), Stoke AS Spine Skore (SASSS), Modified Stoke AS Spine Score (M-SASSS).

Primer aim of this study was compared this radiological indices (BASRI, SASSS, M-SASSS) and could tested adavantages between themselves. However, other aims were to evaluate correlations between activation of disease, functional situation of patient, quality of life, metrological measurements and accute phase reactants in AS patients.

For this purpose, 73 volunteer patients with AS (18 women, 55 men) were included to this study. Bath Ankylosing Spondylitis Functional Index (BASFI), Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Ankylosing Spondylitis Quality of Life Questionnaire (ASQoL) were applied to evaluate the functional situation, disease activation and quality of life of patients, respectively. Bath Ankylosing Spondylitis Metrology Index (BASMI) was used to evaluate the spinal mobility of patients. Erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) of patients levels were measured. Radilological evaluation was performed according to Stoke Ankylosing Spondylitis Spine Score (SASSS), Modified Stoke Ankylosing Spondylitis Spine Score (M-SASSS) and Bath Ankylosing Spondilitis Radiology Index (BASRI). Spearman correlation test was used to analysis correlations of outcomes.

In the conclusion; while finger to flor distance was found correlation with SASSS, it was not determined with other radiological indices. It was found correlation between the other mobility measurements with whole radiologic measurements of patients ( $p < 0.05$ ). Positive correlation was determined between radiological measurements with disease duration,

between BASDAI and ASQoL with serum CRP levels and between smoking with BASMI and BASFI ( $p < 0.05$ ). Very good correlation was defined between radiological indices.

According to outcomes of this study; correlation coefficients between BASRI and with disease duration and mobility measurements were found better than the other radiological indices (SASSS, M-SASSS). Also, it was showed that BASRI reflected better than other radiological indices the functional situation of patient. Furthermore, length of evaluation of BASRI process was shorter than the others. Because, The SASSS is obtained by assessing the lower border of T12, all 5 lumbar vertebrae, and the upper border of the sacrum on a lateral view and MSASSS procedure the anterior sites of the same vertebrae of the lumbar spine as described for the SASSS are scored, as are the anterior sites of the cervical spine from the lower border of C2 to the upper border of T1. However, roentgenogram was evaluated globally in BASRI. Consequently according to results of our study, we can suggest that BASRI can applied easier and is more practical and reflects better current situation of patient than other radiological indices. Addition, mobility and function of patient is limited to be paralel with to smoking levels.