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CLINICAL AND RADIOLOGICAL FEATURES OF SHOULDER INVOLVEMENT IN SpondylarthritIs

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Background: Peripheral joint involvement is frequent among patients with peripheral spondylarthritids (SA). However, the root joint involvement, such as hip involvement, has been described as being associated with axial spondylarthritids, while data for shoulder involvement are scarce. Cuff tendinosis and enthesitis are common features in the shoulder in patients with SA.

Objectives: This study aimed to identify the prevalence of shoulder involvement in SA patients and describe its clinical and radiological features.

Methods: We conducted a retrospective study including SA patients, all fulfilling the assessment of Spondyloarthritids International Society (ASAS) criteria. For all patients, we collected the following data: Age, the clinical presentation of SA, the inflammatory biomarkers C-reactive protein (CRP), and the disease activity assessed by the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI). Regarding shoulder involvement, we assessed the following items: tenderness, mobility, rotator cuff tests, as well as the results of X-ray and Ultrasound examination (US).

Results: We included one hundred and thirty-one SA patients (mean age 39.77 years). Among them, sixty-two percent were male. Ten percent of patients were smokers, 46.6% had the peripheral beginning of the disease. Fourteen patients complained of shoulder pain. The majority of them were male. X-rays showed no abnormalities (n=2), while a destructive form was noticed in (n=7).

The shoulder involvement was rare in our study. It is characterized by cuff tendinosis and enthesitis, especially in supraspinatus insertion. However, the glenohumeral synovitis was uncommon in our series, even in the peripheral form of the disease.

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**Objectives:** To study the possibility of using ultrasound for dynamic monitoring of sagittal mobility of the spine in ankylosing spondylitis (AS).

**Methods:** Ultrasound of the spine was performed in 15 patients with AS according to the method described in the article Yurdakul O. V. - determination of the sonographic distance between the spinous processes C5-C6, Th11-Th12 and L4-L5 of the vertebra (initial - vertical position, and when tilted - maximum sagittal flexion). All patients underwent a double examination: at inclusion in the study and after 2 weeks. The average age of the patients was 40.8±11.4 years, and the average duration of the disease was 5.5±3.5 years. 93.3% of patients were and after 2 weeks. The average age of the patients was 40.8±11.4 years, and the average duration of the disease was 5.5±3.5 years. 93.3% of patients were positive for HLA-B27. All patients were treated with nonsteroidal anti-inflammatory drugs, and 9 (60%) had biological therapy. The differences between the indicators obtained on the first day and after 2 weeks were calculated and further compared.

**Results:** During 2 weeks of follow-up, ESR practically did not change (it was 16 [6;48], after 2 weeks 14 [6;27], p=0.45), CRP decreased by 3.5 times (22.3 [2.5;40.5] and 5.9 [3.0;23.7], p=0.04), BASDAI (7.2-3.1,p=0.003), ASDAS-CRP (3.7-2.2,0.001) and BASFI (5.5-2.5, 0.001), but not BASMI 10 (24-22, p=0.18). There were also no significant changes in mobility indicators according to sonographic measurements for 2 weeks. However, the correlation analysis of the dynamics of indicators for the study period showed the following results (see the Table 1):

**Conclusion:** The method of ultrasound examination of spinal mobility in AS allows not only to objectively the indicators, but can also be used to monitor the function of the axial skeleton during follow-up.

**REFERENCES:**

**Disclosure of Interests:** None declared.

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