DOES RADIO-ANATOMIC FEATURE OF HIP ARTHRITIS IN SPONDYLOARTHRITIS PREDICT FUNCTIONAL IMPAIRMENT?

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Background: Axial spondyloarthritis (AS) is a chronic inflammatory disease that primarily affects the axial skeleton. Hip involvement is common in AS patients. The reported prevalence of clinical hip involvement in AS ranges from 24% to 36% and prevalence of radiographic hip arthritis ranges from 9% to 22%,1, 2 Several radio-anatomic feature are described with often significant clinical impact.

Objectives: To assess for an association between the radio-anatomic feature of hip arthritis and its clinical impact in patients with AS.

Methods: Cross-sectional study including patients with AS according to the 1991 ASAS criteria of 2005 who had hip arthritis. All patients had pelvic X-rays. This one allowed to distribute the patients according to five radio-anatomic feature of the hip arthritis: destructive, erosive, ankylosing, mimicking osteoarthritis and early hip arthritis.

To evaluate the functional impairment, two clinical indices were calculated: Lequesne index and Inter-malleolar distance between the two medial malleoli in centimetre. The comparison of qualitative variables was performed with the Chi square test and the comparison of quantitative variable and quantitative ones was performed with the Student’s test. The significance level was set at 0.05.

Results: One hundred patients were included with 176 hips arthritis. The delay between onset of AS and hip arthritis was on average 5.6 years [0-34]. The distribution of coxitis according to the radio-anatomic feature was as following: destructive (110 cases), erosive (10 cases), mimicking osteoarthritis (29 cases), ankylosing (7 cases) and early hip arthritis (20 cases).

According to the Larsen classification for destructive hip arthritis: a grade 4 was found in 41 cases, a grade 2 in 33 cases, a grade 3 in 33 cases and a grade 1 in 3 cases.

The destructive form had the most important functional impairment with the highest Lequesne index in comparison with other forms (13.05 vs 9.7, p=0.000) and the smallest inter-malleolar distance (74.40 vs 87.29, p=0.010).

The early hip arthritis and erosive forms had the least important functional impact in the following scores: Lequesne index (8.83 vs 12.29, p=0.015) and (10.78 vs 11, 96, p=0.000) and the inter-malleolar distance (76.36 vs 65.00, p=0.015) and (105.56 vs 70.22, p=0.002) respectively.

Scores were comparables for osteoarthritis and ankylosing forms.

Conclusions: Our study showed that radio-anatomic feature of hip arthritis could influence functional impairment. Distinguishing these forms may allow the rheumatologist to select the hip arthritis that deserves more attention because of the highest risk of functional impairment.

REFERENCES:


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PLATELET COUNT IN ANKYLOSING Spondylitis: CAN IT SHOW THE DISEASE ACTIVITY?


Background: C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR) are the main inflammatory biomarkers used in assessment of disease activity in numerous inflammatory diseases such as ankylosing spondylitis (SA).

In recent years, it has been shown that Platelet count (PC) provided additional information on inflammatory status.

Objectives: The present study aimed to investigate the correlation between PC and clinical activity indices assessed by Bath ankylosing spondylitis disease activity index (BASDAI).

Methods: The study included 68 patients who fulfilled Assessment of Spondyloarthritis International Society Criteria. A cell blood count, including platelet count, ESR (mm/h), CRP (mg/L) and albumin (g/L), was obtained for each patient.

Disease activity measures at the time of blood sampling were obtained using the BASDAI. Statistical Package for Social Sciences (SPSS) was used for analysis.

Results: Of the 68 patients, 73.5% were male (Sex Ratio: 2.7). The mean age was 36±12.9 years. The mean disease duration was 40 months [0–192]. The average age of the onset of the disease was 36±11.9 years. No patient had ongoing infection at time of study. The mean BASDAI score was 5.1 [1.55–9.2]. Forty-one percent of our patients (n=28) had active AS (BASDAI >4).

The mean ESR, CRP, albumin and PC were 39.4 (mm/h), 34.1 (mg/dL), 39.32 g/L and 311 (10^3/mL), respectively.

There was a positive correlation between platelet count and following biomarkers: ESR: r=−0.481; p=0.000, CRP: r=0.417; p=0.000 and albumin levels: r=−0.556; p=0.000. A negative correlation between and Haemoglobin (Hb) was noted: r=−0.643; p=0.000.

There was no significant difference in laboratory parameters (ESR, CRP, albumin, PC, Hg) between patients with active AS (BASDAI >4) and those with inactive AS (BASDI ≤4).

Conclusions: Although acute phase reactant such as ESR, CRP and PC mirror disease activity in AS,1 their values were not associated with disease activity assessed by BASDAI in our study. However, new prospective studies including larger study groups are required to verify the findings of the present study.

REFERENCE:


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