



POSTER PRESENTATION

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# PReS-FINAL-2258: Final diagnoses of pediatric patients presenting with musculoskeletal symptoms in a center from the eastern Mediterranean

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## Introduction

Complaints related with musculoskeletal system are frequent in children and adolescents.

## Objectives

To identify the clinical and laboratory features in children and adolescents suffering from musculoskeletal complaints (excluding acute traumatic conditions) in a tertiary referral center in Central Anatolia; and to define etiology and clues for differential diagnosis.

## Methods

All children [n: 422; mean age  $7.90 \pm 3.95$  (range: 4 mo.- 18 years); 48.2% female] presenting to the outpatient clinic for the first time due to pain, swelling or limitation of movement attributed to musculoskeletal system in a 6 month period were enrolled. Demographical features, duration, and type of complaints, physical signs on initial presentation and laboratory findings [a complete blood count, erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP)] were recorded.

## Results

Etiology was identified in 97.2% (n: 410) of the cases and were classified as follows: non-inflammatory and mechanical conditions (NIMC, n: 178; 42.2%), rheumatologic diseases (RD, n: 131; 31%), infection related disorders (IRD, n: 91; 21.6%) and malignancy (M, n: 10; 2.4%). NIMC group was characterized with longer duration of complaints, higher rate of non-articular complaints, lower rate of joint involvement, limping and lower levels of leukocytes, ESR, and CRP ( $p < 0.001$ ).

Rate of rheumatic disease was higher in >12 years of age group, compared to younger ones ( $p: 0.005$ ). On the contrary younger age group was associated with higher rate of IRD group ( $p: 0.007$ ). Small joint involvement was highest in RD group (16.8%), compared to other groups ( $p < 0.05$ ). Rate of IRD was highest when the duration of complaints was less than 7 days, compared to the other groups ( $p < 0.05$ ). Rheumatic disease had the lowest rate among patients with duration of complaints less than 7 days compared to the other three groups ( $p < 0.05$ ). Familial Mediterranean fever (9.7%), juvenile idiopathic arthritis (8.3%) and Henoch-Schönlein purpura (5.7%) were the most frequent rheumatologic diseases. Median ESR levels in RD and M groups were higher, compared to IRD and NIMC groups ( $p < 0.05$  respectively). Although mean ESR levels were comparable among M and RD groups, the frequency of patients with ESR levels  $\geq 60$  mm/hr were higher in M group (60%), compared to RD (20.6%;  $p < 0.05$ ) group.

## Conclusion

Rheumatologic diseases accounted approximately one third of the etiology among children and adolescents admitted with non-traumatic musculoskeletal complaints. Age, duration of complaints, pattern of joint involvement, and acute phase reactants are practical tools for the differential diagnosis.

## Disclosure of interest

None declared.

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