



Nationwide Israeli Study: Obstacles in Early Diagnosis of Children with Juvenile Idiopathic Arthritis (JIA) - A Retrospective Study

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Background: Juvenile idiopathic arthritis (JIA) is the leading cause of chronic arthritis in children. A delay in the diagnosis can lead to long term damage.

Objective: Characterization of the stages that patients with JIA pass until diagnosis and analysis of the different outcome measures that lead to a delay in the diagnosis of JIA in Israel.

Methods: We conduct a retrospective cohort study in 8 pediatric rheumatology centers in Israel. All patients that were diagnosed with JIA between 2017 and 2019

included in the study. Demographic, clinical and data regarding the referral's doctors were collected.

Results: 207 patients included in the study (69% female). Patients were evaluated by primary care physicians (62%), ER physicians (13%), and orthopedists (11%) prior to diagnosis. The median time until diagnosis was 56 days (1-2451 days). Patients diagnosed with ERA/SPA and psoriatic arthritis had the longest period until diagnosis (351 and 213 days respectively). A younger age was correlated with a later diagnosis ($r=0.3$, $P<0.0001$). Females were diagnosed earlier compared to males (median 48 vs 84 days respectively). The distance to the rheumatology center with regards to time until diagnosis was not significant ($P=0.19$). Fever at presentation, significantly shortened the time to diagnosis ($P<0.0001$), whereas involvement of the small joints/sacroiliac joints significantly lengthened the time ($P<0.05$).

Conclusions: This is the first nationwide multicenter study that analyzes the obstacles in the diagnosis of JIA in Israel. Raising awareness of JIA, especially of patients with SPA, is crucial in order to **avoid delays in diagnosis and treatment.**