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NON-SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS - IS THE TREATMENT GOAL ACHIEVED?

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Introduction: A treat-to-target approach is recommended for all forms of juvenile idiopathic arthritis (JIA), with the goal of achieving inactive disease within the first six months of treatment [1]. Treatments and outcomes in newly diagnosed children and adolescents with JIA are currently being studied as part of the ProKind-Rheuma project.

Objectives: To investigate whether the treatment goal of inactive disease is achieved in non-systemic JIA and what factors are associated with failure to achieve the goal.

Methods: ProKind-Rheuma is an ongoing multicentre, prospective, non-interventional observational study. Patients with newly diagnosed JIA were enrolled from January 2020 to June 2022 and are being followed prospectively. Physician- and parent-reported data are collected in a standardized way (e.g., disease activity with the cJADAS-10, functional limitation with the Childhood Health Assessment Questionnaire (CHAQ), quality of life with the PedsQL 4.0). Data from patients with non-systemic JIA and a follow-up (FU) at 6 months \pm 6 weeks were included. Chi2-Test was performed for categorical variables, Students t-test for continuously distributed variables.

Results: Six-month FU data were available for 325 patients with non-systemic JIA (42% oligoarthritis, 35% polyarthritis, 8% enthesitis-related arthritis, 3% psoriatic arthritis, 3% other arthritis) recruited 1.2 (\pm 2.1) months after diagnosis from 17 paediatric rheumatology centres.

At the FU, 43% had reached inactive disease according to the 2021 cJADAS cutoffs [2]. Conversely, more than half had not reached the treatment target, including 69% of oligoarthritis, 48% of polyarthritis, 53% of enthesitis-related arthritis and 43% of psoriatic arthritis patients. One third (35%) of patients still had moderate or high disease activity at FU.

There were no significant differences in age at onset, frequency of ANA or HLA-B27 positivity, cJADAS-10 or PedsQL 4.0 score at baseline, parental education level (>10 years), or time from symptom onset to diagnosis between those who did not reach treatment goal and those who did. However, those who did not reach the treatment target were more likely to have oligoarthritis (50% versus 30%, $p=0.025$), to receive DMARDs later (2.8 ± 3.7 months versus 1.0 ± 1.3 , $p=0.001$) and were less likely to have a 50% decrease in cJADAS-10 score in the first three months of treatment (61% versus 80%, $p=0.049$) than those who achieved the treatment target.

Conclusion: Under current treatment conditions, less than half of patients achieve the goal of inactive disease after six months of treatment. It seems that especially patients with oligoarthritis need to be treated more effectively.

Patient Consent: Yes, I received consent

References: 1. Ravelli A, Consolaro A, Horneff G, et al. Ann Rheum Dis 2018;77:819-28.
2. Trincianti C, Van Dijkhuizen EHP, Alongi A, et al.; PRINTO. Arthritis Rheumatol 2021;73:1966-75.

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