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Analysis of the Therapy in Patients with Juvenile Idiopathic Arthritis

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Introduction and aims: Methotrexate (MTX) is an effective and safe drug used for the treatment of juvenile idiopathic arthritis (JIA) and is well-known like a golden standart in the treatment of this serious illness. The aim of this study was analysis of therapy in patients with JIA focusing on MTX and faktors affecting its intolerance.

Methods: The study was undertaken from January 2017 to February 2018 at the Department of Paediatrics and Adolescent Medicine, 1st Faculty of Medicine, Charles University in Prague. Patients younger than 18 years old, who have become ill with JIA for the first time or repeatedly between years 2015–2017 and were treated by MTX were included in this study. The prevalence of MTX intolerance was measured by „*Methotrexate Intolerance Severity Score*“ questionnaire every 3 months during regular rheumatological examinations. Simultaneously, medical records were reviewed. Data analysis was performed by means of descriptive statistics, correlation dependence and statistical signifikance of dependence was assessed with statistical two-choice t-test.

Results: A total of 49 patients, with the average age of 6,24 (SD ± 4,35) years, were included in. During the study intolerance of MTX appeared at least once in 55 % of patients. The number of patients with intolerance was raising throughout the individual examinations during the study. MTX intolerance at 6 and 12 month was noted in 24 % and 35 %. Most commonly, patients reported behavioral disorders. After change of the submission of drugs from parenteral to oral was noted improvement of intolerance.

Conclusions: The prevalence of intolerance is in our study higher than in other studies. The probable cause is the higher proportion of patients treated with parenteral MTX. Another important factor in the development of intolerance is the duration of treatment. We didnt find any significant predictive factors for intolerance.

Key words: Juvenile idiopathic arthritis, Methotrexate, Methotrexate intolerance.