**AB1412**  
**THE DAMAGE OF JUVENILE IдиOPATHIC ARTHRITIS IN ADULT PATIENTS**

**Keywords:** Outcome measures, bDMARD, Disease-modifying Drugs (DMARDs)

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**Background:** Juvenile idiopathic arthritis (JIA) is the most common disease in pediatric rheumatology. After transition, chronic active JIA requires continuing treatment. Little is yet known about the JIA activity in adult patients.

**Objectives:** To assess disease activity, treatment and comorbidities in adult patients with JIA between 2000 and 2022 at the University Hospital of Heidelberg.

**Methods:** This is a monocentric, retrospective analysis of adult patients with onset as JIA. The electronic medical records were analyzed from the first to the last documented visit in our center. Prognostic factors for disease activity in adults were determined using Fisher’s exact test, chi-square test and cross tables.

**Results:** Until March 2022, 172 JIA patients with a median age of 27.7 years (range 18.1 to 78.4) and a median disease duration of 19.4 years (range 1.3 to 68.8) at their last visit were identified. Oligoarticular (oligo-) (n=36, 20.9%), extended-oligo (ext-oligo-) (n=28, 16.3%) and polyarticular (poly-) (n=61, 35.5%) were the largest JIA subgroups. Females (n=134, 77.9%) were more prevalent than males (n=38, 22.1%) (p<0.001). The prevalence of uveitis was 27.9% (n=48). Patients with RF+ poly-JIA (n=17, p<0.001) or initiation of MTX after 2 years (n=41, p=0.006) or bDMARD after 3 years (n=44, p<0.001) of disease onset were associated with significantly more erosive joint damage. Patients with late MTX and/or bDMARD initiation (n=190) had more frequently osteoporosis (n=48, p=0.011, p=0.012) and required more frequently total joint replacement (n=41, p=0.012, p=0.04). Radiological joint damage was more prevalent in patients with a disease onset before the year 2000. At the last documented visit 51.8% of patients (n=72) were in SDAI and DAS28 remission.

**Conclusion:** The delay of MTX and bDMARD therapy in patients with active JIA was associated with erosive joint damage, total joint replacement and osteoporosis. The JIA onset before the year 2000 was associated with significantly more joint damage and a lower prevalence of remission.

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**AB1414**  
**PREDICTIVE FACTORS OF BIOLOGIC DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS (BDMARD) USE IN JUVENILE IDIOPATHIC ARTHRITIS PATIENTS**

**Keywords:** bDMARD

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**Background:** The advent of disease-modifying antirheumatic drugs (DMARDs), in the past two decades has been revolutionary in the treatment and prognostic outcomes of patients with Juvenile Idiopathic Arthritis (JIA). Since some patients have inadequate responses to conventional DMARDs, biologic DMARDs (bDMARDs) must be prescribed to guarantee the achievement of complete remission. Early and appropriate treatment can prevent joint destruction, loss of joint function and extraarticular manifestations, with subsequent less morbidity and mortality.

**Objectives:** To identify the JIA patients with a higher probability of requiring treatment with bDMARDs and to investigate the predictive factors.

**Methods:** A retrospective single-center study of patients with JIA followed in a tertiary Hospital was conducted. Sociodemographic, clinical, laboratory and treatment characteristics were collected from Portuguese Rheumatic Diseases Register and medical records. Statistic was performed with independent samples t-test, Mann-Whitney U test, chi-square test and Fisher’s exact test. Statistical significance was set up at a p-value <0.05. A multivariate logistic regression analysis was performed to identify possible predictive factors for bDMARD use. Odds ratios (ORs) and 95% confidence intervals (CIs) were calculated.

**Results:** A total of 165 patients with JIA (107 females, 64.8%) were included. Seventy-five patients had oligoarthritis (45.6%), 62 had persistent oligoarthritis and 13 had extended oligoarthritis, 17 psoriatic arthritis (10.3%), 30 rheumatoid factor (RF)-negative polyarthritis (18.1%), 6 RF-positive polyarthritis (3.8%), 14 systemic arthritis (8.5%) and 23 enthesitis related arthritis-juvenile spondyloarthritis (13.9%). Forty-five patients were treated with bDMARD (27.3%). Males were treated more frequently with bDMARDs than females (p=0.058). Regarding JIA subtype, more RF-positive polyarthritis patients needed bDMARDs to achieve remission (p=0.027). Likewise, concerning disease activity, JIA patients with higher C-reactive protein (CRP) values were more frequent treated with bDMARDs (p=0.02), which was not verified for erythrocyte sedimentation rate (ESR). Uveitis was significantly more frequent in the bDMARD group (p=0.006). Moreover, more patients with bilateral involvement were treated with bDMARDs, compared with patients with unilateral uveitis (n=0.032). Nevertheless, no differences were found concerning age and number of joints involved at onset, disease duration and AKA positivity. In a multivariate regression model adjusted for gender, the presence of uveitis (OR 4.42, 95% CI 1.43 to 13.60, p=0.010) and polyarticular involvement (OR 6.62, 95% CI 2.05-21.43, p=0.002) remained statistically significant predictive factors for bDMARD use in patients with JIA.