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REFERENCES:

[1] Hazel et al. Pediatric Rheumatology 2010 8:2.

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AB0273 LATE-ONSET JIA-RELATED UVEITIS: A SINGLE-CENTER STUDY

Keywords: Uveitis, Synovium

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Background: Uveitis represents the most frightening extra-articular complication in juvenile idiopathic arthritis (JIA) and represents a significant cause of disability. In most cases, it occurs simultaneously with or after the diagnosis of arthritis, usually in the first 4 years from the onset of the joint disease.

Objectives: The study aims to evaluate and describe cases of late-onset uveitis. **Methods:** The medical records of patients followed at our center suffering from JIA associated with uveitis from 1985 to 2022 were retrospectively reviewed.

Results: 114 patients suffering from JIA complicated by uveitis were included in the study (F 78%; n=89) with a mean follow-up time of 21 years $(SD \pm 10.9)$ from the joint or ocular disease onset, 99 patients (87%) belong to the oligoarticular JIA subgroup, 12 (11%) in the polyarticular RF - category, 2 (2%) in the psoriatic form, and 1 (1%) presented a form of acute anterior uveitis HLA B27 correlated with enthesitis-arthritis JIA. ANA antibodies were positive in 111 patients (97%). In 108 patients (95%), joint disease preceded ocular involvement, while in only 6 patients (5%), uveitis preceded arthritis. In the majority of cases, uveitis manifested itself within the first 4 years from diagnosis of arthritis, with a median arthritis-uveitis delta time of 12 months (IQR 37); however, in 25 patients (25/108; 23%), uveitis appeared after the first 4 years of the articular disease. In the latter subgroup, all patients had disease onset before 5 years of life and were classified as oligoarticular JIA ANA +, except for 4 patients diagnosed with polyarticular JIA RF -, ANA +. Clinical and demographic characteristics are summarized in Table 1. 19/25 patients (76%) were female. The median time between the onset of arthritis and uveitis was 7 years (IQR 3.5; range 4.5-23), with a mean number of visits equal to 19 (SD ±7.9) before the detection of uveitis. At the time of onset of uveitis, 10 patients were receiving methotrexate monotherapy and 2 were receiving methothrexate in combination with etanercept. In patients with onset over 5 years of age, the appearance of uveitis remained within 4 years of the onset of arthritis, unlike patients with onset in the first 5 years of life in whom uveitis also manifested itself later (p= 0.011). Furthermore, a negative correlation was found between age at onset of arthritis and age at onset of uveitis (r= -0.2; p=0.036) (Figure 1). Conclusion: The most significant risk of uveitis occurs in the first years after the onset of the joint disease. However, a non-negligible portion of patients with risk factors for uveitis appear even after many years of disease; therefore, long-term follow-up would appear to be the most prudent approach in this subgroup of patients.

Table 1. Clinical and demographic characteristics of the cohort

	n=114	
Sex, F n (%)	89 (78)	
Years of FU, mean (SD)	21 (±10.9)	
Uveitis before arthritis, n (%)	6 (5)	
ANA +, n (%)	111 (97)	
JIA classification subgroup, n (%)		
Oligoarticular	99 (87)	
Polyarticular RF -	12(11)	
Psoriatic	2 (2)	
ERA	1 (1)	
Δ arthritis_uveitis, months, median (IQR)	12 (37)	
Uveitis after 4 years from arthritis, n (%)	25 (23)	



Figure 1. Correlation between age at onset of arthritis and age at onset of uveitis.

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AB0274 REGRESSION MODEL FOR THE PREDICTION OF RISK OF SARCOPENIA AMONG YOUNG ADULTS WITH JUVENILE IDIOPATHIC ARTHRITIS

Keywords: Sarcopenia, Prognostic factors, Vitamin D

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Background: Sarcopenia is a generalized loss of skeletal muscle mass and strength. Early identification is crucial to minimize adverse outcomes, which can help prevent and manage sarcopenia promptly. Hence, we developed a regression model for the prediction of sarcopenia among young adults with juvenile idiopathic arthritis (JIA).

Objectives: The study aims to develop a regression model for the prediction of sarcopenia among young adults with JIA.

Methods: Sarcopenia was diagnosed as a combination of low muscle mass and strength: (1) Muscle mass measured by dual-energy X-ray absorptiometry (DXA) with such cut-off points for skeletal mass index (SMI) <5.7 kg/m2 for females and SMI<7.0 kg/m2 in males; (2) Muscle strength: grip strength <28 kg in men and<18 kg in women. The independent variables assessed were weight (kg), duration of JIA (years), disease activity by Disease Activity Score (DAS28), vitamin D25OH (nmol/l), and functional disability according to the Health Assessment Questionnaire (HAQ). Binary logistic regression was used to determine the odds ratio and to develop the model. The model's ability was evaluated using receiver operating characteristic (ROC) curves and the area under the ROC curve (AUC).

Results: Eighty-two young adults with JIA were included and analyzed in this study. Among the variables considered, weight, duration of JIA, disease activity by DAS28-ESR, vitamin D25OH, and functional disability by HAQ showed a significant odds ratio (r2 = 0.78; $p \le 0.05$); thus, they were considered for developing the regression model. The regression model obtained for the risk of sarcopenia is P=1/(1 + e-z), $z = [12.03 - 0.19^{*}X \text{ (weight)} + 0.16^{*}X \text{ (duration of JIA)} - 0.07^{*}X \text{ (vitamin D25OH)} + 2.96^{*}X \text{ (DAS28-ESR)} + 4.05^{*}X \text{ (HAQ)}]. The resulting ROC curve was characterized by an AUC value of <math>0.94\pm0.05$ (95% CI: 0.85-1.00). The value of the predictive function P at the cut-off point was determined at 0.464. With values of 0.464 and above, a high risk of sarcopenia was predicted. Values below 0.464 indicate low risk. The model's sensitivity at a given threshold value of the P function was 92.3%, and the specificity was 81.2% (Figure 1).