EVALUATION OF CYTOKINE PROFILE IN ADOLESCENTS WITH JUVENILE RHEUMATOID ARTHRITIS AGED 15 TO 18 YEARS

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Relevance:
The inflammatory process in juvenile rheumatoid arthritis progresses with age, causing more pronounced immune system changes. Assessing cytokine levels may assist in predicting disease progression and choosing optimal therapy.

Objective:
To study changes in the levels of IL-8, IL-17A, and IFNγ in adolescents with JRA aged 15 to 18 years and identify the correlation between these markers and disease severity.

Materials and Methods:
Thirty-four adolescents with JRA aged 15 to 18 years participated in the study, divided into seropositive and seronegative groups. Cytokine levels were measured using ELISA.

Results and Discussion:
Adolescents with the seropositive form of JRA had significantly higher IL-8 levels (38,3±4,06 pg/mL), nearly three times higher than the control group. IL-17A was also elevated (41,25±5,14 pg/mL), indicating a continuing inflammatory process. In contrast, IFNγ levels were sharply reduced (9,1±1,13 pg/mL), suggesting a weakened antiviral defense and enhanced autoimmune responses, especially in the seropositive group.

Conclusion:
The significant elevation in pro-inflammatory cytokines IL-8 and IL-17A, alongside the marked reduction in IFNγ, points to an exacerbated inflammatory state in adolescents with JRA. These findings emphasize the need for early cytokine assessment to predict disease progression and adjust treatment strategies.

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