

EVALUATION OF M1 AND M2 MACROPHAGE POLARIZATION IN JUVENILE DERMATOMYOSITIS AND JUVENILE SCLERODERMA

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THESIS ABSTRACT

JDM and JLS are childhood connective tissue diseases characterized by vascular inflammation, immune activation, and tissue remodeling. This study evaluated macrophage polarization, cytokine/chemokine profiles, and ADA isoenzymes in JDM and JLS. Increased IL-18, TNF- α , CXCL-9, CXCL-10, and ADA/ADA1/ADA2 levels in JDM supported a pro-inflammatory response, whereas increased IL-4, IL-10, TGF- β levels and M2-like macrophage predominance in JLS were associated with a fibrotic response. Increased ADA2 and CD68 expression in skin biopsies suggests that macrophage activation and ADA-related immune mechanisms may contribute to disease pathogenesis.

APPLICATION AREAS OF THESIS RESULTS

The thesis results indicate that the ADA2-macrophage polarization axis may play a role in the pathogenesis of JDM and JLS. This axis may represent a promising research area for biomarker development, clinical follow-up, assessment of disease activity, and future targeted therapeutic strategies.

ACADEMIC ACTIVITIES

1. Interferons dominate damage and activity in juvenile scleroderma
Hulya Kose, Abdurrahman Simsek Muhammed Ali Kizmaz, Tugce Bozkurt, Ferdi Ozturk, Sukru Cekic, Ferah Budak, Hayriye Saricaoglu and Sara Sebnem Kilic



KEY WORDS

- ✓ Juvenile dermatomyositis
- ✓ Juvenile localized scleroderma
- ✓ Macrophage polarization
- ✓ ADA1
- ✓ ADA2

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Macrophage Polarization and ADA2 in JDM and JLS

Graphic Abstract

