PSORIASIS

CD19+CD24HIGHCD38HIGH AND CD19+CD24HIGHCD38- REGULATORY B LYMPHOCYTES IN PSORIATIC PATIENTS

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Introduction: Immunological imbalance of lymphocytes Th1 and Th17, plays an important role in the complex pathogenesis of psoriasis. In psoriasis the immunological tolerance is disturbed and the function of cells with suppressive properties is impaired. However, the role of regulatory B cells that are able to regulate cytokine production as well as inhibit cellular responses and inflammation remains unclear in the pathogenesis of psoriasis.

Objective: The assessment of the percentage of CD19+CD24highCD38high and CD19+CD24highCD38- subpopulations of the regulatory B cells in psoriatic patients.

Materials and methods: The study comprised 37 male and 5 female psoriatic patients as well as sex and age matched healthy controls. In the peripheral blood mononuclear cells the percentage of CD19+CD24highCD38high and CD19+CD24highCD38- B regulatory cells were assessed with the use of flow cytometry. In all the patients PASI (Psoriasis Area and Severity Index) BSA (Body Surface Area) and IGA (Investigator Global Assesment) were calculated.

Results: The percentage of CD19+CD24highCD38high was significantly lower in psoriatic patients compared with healthy controls (median, 1.9% vs. 4.2; p=0.001). The frequency of CD19+CD24highCD38- was significantly lower in the studied than control groups (median, 10.05% vs. 23.4%; p=0.015). No significant correlations were found between the percentages of the studied regulatory B cells subpopulations and psoriasis duration and severity.

Conclusions: The decreased percentages of CD19+CD24highCD38high and CD19+CD24highCD38- cells might represent additional features of impaired functions of suppressive immune cells in psoriasis.