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ABSTRACT

Quantitation of Soluble Interleukin-2 Receptor (CD25) and Soluble CD27 in Serum from Psoriasis Patients during Cyclosporine A Treatment

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Psoriasis is a T-cell-mediated dermatosis which can be treated successfully with cyclosporin A (CsA). To date, no valuable parameter is available to evaluate disease activity or in-vivo T-cell activation in psoriasis patients. We therefore studied the serum levels of the soluble (sol) T-cell activation antigen CD25 (interleukin-2 receptor) and sol CD27. Sixteen psoriasis patients were treated for a period of 16 weeks with an optimal CsA dose (3–5 mg/kg/day). The mean PASI before treatment was 16.2, vs. 3.6 after CsA treatment. Serum samples were taken every 4 weeks. Serum sol CD25 levels (normal 268–620 U/ml) were elevated in 12/16 untreated patients and returned to normal following CsA treatment. The mean serum sol CD25 level before treatment was 784, vs. 603 U/ml (normal) within 4 weeks and 480 U/ml after 16 weeks of CsA treatment. The mean sol CD27 level (normal 112–217 U/ml) in all untreated patients was not increased (210 U/ml). However, 6/10 patients with severe psoriasis (i.e. PASI ≥16) showed elevated sol CD27 levels, which in 3 patients returned to normal values after CsA treatment. These findings indicate that sol CD25 – and to a lesser extent sol CD27 – can be used to monitor immunosuppressive treatment with CsA in psoriasis patients.

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