

Exploration of immunological mechanisms of dermatophytic infections using trichophytin intradermic reaction and IgE serum level

Viorica Marinescu

Summary

The study of host response to dermatophytic infection using trichophytin intradermic reaction and IgE serum level was made on 89 patients with acute and chronic dermatophytosis.

The results showed a delayed hypersensitivity reaction positive in 69,76% cases of acute dermatophytic infections and a positive immediate hypersensitivity reaction in 76,08% cases of chronic dermatophytic infections. The IgE serum level was normal in the acute dermatophytic infections and high-varying from 186ui/ml to 9250ui/ml in the chronic dermatophytic infections.

In this study, in the chronic dermatophytic infections, the positive immediate hypersensitivity reaction to trichophytin was associated with high IgE serum levels. This suggests a dominant T helper (Th2) response. We know that LTh2 produce mainly IL4 and IL5, which induce IgE synthesis. The dominant LTh2 response seems to favour the multiplication of the dermatophytes in the horny layer, this way the infection becoming chronic. In the acute dermatophytic infections, the positive delayed hypersensitivity reaction to trichophytin, associated with normal IgE serum levels suggests the fact that these patients have a good cell - mediated immune response which favours the elimination of the fungal agents.

Key words: dermatophytic infections, i.d.r. trichophytin, serum IgE