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Autor(en) des Beitrags: Simon, D; Von Gunten, S; Borelli, S; Braathen, LR; Simon, HU

Titel des Beitrags: The interleukin-13 production by peripheral blood T cells from atopic dermatitis patients does not require CD2 costimulation.

Abstract: BACKGROUND: Although allergic mechanisms appear to be important, the pathogenesis of both extrinsic and intrinsic forms of atopic dermatitis (AD) is unknown. METHODS: We compared the cytokine production of peripheral blood mononuclear cells of extrinsic AD (EAD) and intrinsic AD (IAD) patients and normal control individuals after stimulation with anti-CD3 and/or anti-CD28 monoclonal antibodies (mAbs) in the presence or absence of anti-CD2-blocking mAb. The cytokine production was measured by immunoassays in supernatants of 24-hour cultures. RESULTS: EAD patients showed a decreased capacity to synthesize interferon gamma and granulocyte-macrophage colony-stimulating factor upon anti-CD3 mAb stimulation as compared with IAD patients. Both EAD and IAD patients demonstrated an increased production of interleukin (IL)-5 and IL-13. As expected, interferon gamma, granulocyte-macrophage colony-stimulating factor, and IL-5 levels were reduced in the presence of anti-CD2-blocking mAbs. CD28 costimulation restored the release in cultures with anti-CD2 mAbs added, suggesting that CD2 and CD28 have redundant functions in T cell activation and subsequent cytokine production. Strikingly, the IL-13 production was not blocked by anti-CD2 mAbs and also not increased by agonistic anti-CD28 mAb, in particular within the...
EAD patient group. CONCLUSION: The signalling pathway initiated by the T cell receptor complex leading to increased IL-13 production in AD patients appears to be highly sensitive and is largely independent on CD2 costimulatory signals.