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# CUCURBITACIN D INHIBITED PRO-INFLAMMATORY CYTOKINE PRODUCTION AND PROLIFERATION IN KERATINOCYTES

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**Psoriasis is a chronic, relapsing inflammatory skin disease, characterized by erythematous plaques covered by silvery scales. While the pathogenesis of psoriasis is still unclear, most findings indicated that intensifying T helper 1(Th1) and Th17 are required for the development of psoriasis. Cucurbitacin D is chemically classified as steroid with anticancer activity on endometrial and ovarian cancer cells. First, we evaluated the effects of cucurbitacin D on inflammatory mediator and chemokine production in IL-1α, IL-17A, IL-22, oncostatin M, and TNF-α (named M5 combination)-stimulated 3D reconstituted human epidermis. Cucurbitacin D significantly inhibited the production of IL-1β, IL-20 and GM-CSF. Second, we examined whether cucurbitacin D influences the expression of proliferation marker in IL-22 stimulated HaCaT keratinocytes. Cucurbitacin D significantly suppressed the expression of K16, K17 and Ki67 in IL-22 stimulated HaCaT cells at a concentration of 30μM. Cucurbitacin D also suppressed M5 induced phosphorylation of ERK 1/2 in HaCaT cells. These results suggest that cucurbitacin D may be useful as an anti-inflammatory agent, especially for psoriasis.**

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