Vitamin D analogs modulate immunity in psoriasis

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(HealthDay) -- Vitamin D3 analogs modulate immunity in human psoriasis, inducing thymic stromal lymphopoietin (TSLP) and cathelicidin, according to a study published online March 2 in the *British Journal of Dermatology*.

To determine whether vitamin D3 analogs also have immune modulating effects in human psoriasis, Emi Deguchi, M.D., and colleagues from Fukuoka University in Japan, examined cytokine levels in skin biopsies from psoriatic lesions from 10 patients not treated with vitamin D3 analogs and 10 patients treated with topical vitamin D3 analogs.

The researchers found that, compared with samples from patients not treated with vitamin D3 analogs, samples from patients treated with

vitamin D3 analogs had significantly higher levels of TSLP, thymus and activation-related chemokine, and C-C chemokine receptor type 4. Cathelicidin expression was also higher in these patients. Patients treated with vitamin D3 analogs had significantly lower levels of interleukin (IL)-12/IL-23 p40, IL-1α, IL-1β, and TNF-α.

"Topical vitamin D3 analogs induced TSLP and cathelicidin in psoriatic lesion, resulting in suppression of IL-12/IL-23 p40, IL-1α, IL-1β, and TNF-α, thereby ameliorating psoriatic plaque," Deguchi and colleagues conclude.

More information: Abstract
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