Phototherapy affects serum 25(OH)D levels

September 19 2013

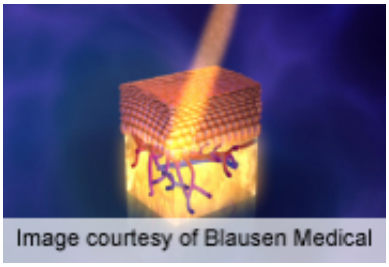
Image courtesy of Blausen Medical

For patients with inflammatory skin conditions, phototherapy with ultraviolet (UV) A1 radiation induces a reduction in serum 25-hydroxyvitamin D3 (25[OH]D) levels, whereas narrowband UVB (UVBnb) and UVA/UVBnb induces significant increases in serum 25(OH)D, according to a study published in the October issue of the *Journal of the American Academy of Dermatology*.

(HealthDay)—For patients with inflammatory skin conditions, phototherapy with ultraviolet (UV) A1 radiation induces a reduction in serum 25-hydroxyvitamin D3 (25[OH]D) levels, whereas narrowband UVB (UVBnb) and UVA/UVBnb induces significant increases in serum 25(OH)D, according to a study published in the October issue of the *Journal of the American Academy of Dermatology*.

Laurence Feldmeyer, M.D., Ph.D., from University Hospital Zurich, and colleagues examined the influence of UVA1, UVBnb, and UVA/UVBnb phototherapy on serum levels of 25(OH)D and related parameters in 116 patients with atopic dermatitis, psoriasis, morphea, and other inflammatory skin conditions. The participants underwent UVA1 (38 participants), UVA/UVBnb (30 participants), or UVBnb (48

participants) two to three times per week for 53 to 90 days.

The researchers found that, after the therapy, UVBnb phototherapy correlated with a significant increase in serum 25(OH)D, from 22.1 to 39.5 ng/mL. Upon application of UVBnb phototherapy, the increase in 25(OH)D was steeper with a lower baseline 25(OH)D. A significant increase in serum 25(OH)D was also seen with UVA/UVBnb therapy, from 23.9 to 50.3 ng/mL. In contrast, in the UVA1 therapy group there was a significant decrease in 25(OH)D serum levels, from 21.9 to 19.0 ng/mL.

"In conclusion, phototherapy has an impact on 25(OH)D levels in the serum," the authors write. "Our study data [call] for closer examination of a potential confounding effect of various skin diseases and the need for oral vitamin D supplementation in UVA1-treated patients."

The study was funded by Spirig Pharmaceuticals.

More information: Abstract
Full Text (subscription or payment may be required)

Copyright © 2013 HealthDay. All rights reserved.

Citation: Phototherapy affects serum 25(OH)D levels (2013, September 19) retrieved 20 April 2024 from https://medicalxpress.com/news/2013-09-phototherapy-affects-serum-25ohd.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.