primary studies - published RCT

Treatment and prevention of vitamin D insufficiency in cystic fibrosis patients: comparative efficacy of ergocalciferol, cholecalciferol, and UV light.

Code: PM19336509 **Year:** 2009 **Date:** 2009 **Author:** Khazai NB

Study design (if review, criteria of inclusion for studies)

RCT

Participants

30 adult CF subjects with vitamin D insufficiency

Interventions

patients were randomized into one of three treatment arms: D3, D2, or UV light. Subjects randomized to D3 or D2 ingested 50,000 IU of vitamin D weekly, and those randomized to UV exposed their skin to UV light from a lamp five times a week.

Outcome measures

Serum was collected for 25(OH)D and PTH at baseline and at 12 wk

Main results

Treatment with D3 and D2 raised 25(OH)D levels significantly, from a mean of 21.2 +/- 10.18 to 47.1 +/- 20.5 ng/ml (P

Authors' conclusions

This study demonstrates that CF subjects are able to achieve or maintain optimal vitamin D status (>30 ng/ml) with two oral regimens of either D3 or D2 treatment, the former being more efficacious. A confounding variable for this observation is the fact that the D3 and D2 capsules contained different carriers, powder-based vs. oil-based, respectively. UV therapy did not alter vitamin D status, possibly due to poor adherence to UV therapy.

http://dx.doi.org/10.1210/jc.2008-2012

See also

J Clin Endocrinol Metab. 2009 Jun;94(6):2037-43. Epub 2009 Mar 31.

Keywords

Adolescent; Adult; Aged; non pharmacological intervention - diet; Nutrition Disorders; prevention; Ultraviolet light; vitamins; Vitamin D; Vitamin D Deficiency; Vitamin deficiencies; Vitamins; pharmacological_intervention;