

Beta-carotene, lycopene prevent dermatitis in murine model

March 24 2016



(HealthDay)—Oral administration of β -carotene or lycopene prevents

atopic dermatitis (AD)-like dermatitis in HR-1 hairless mice, according to an experimental study published online March 19 in the *Journal of Dermatology*.

Makiko Hiragun, M.D., Ph.D., from Hiroshima University in Japan, and colleagues examined the effect of oral administration of β -[carotene](#) or lycopene on AD-like symptoms of HR-1 hairless mice fed with a low zinc/magnesium [diet](#). Mice were divided into four groups and fed for eight weeks with a standard diet; low zinc/magnesium diet (HR group); low zinc/magnesium and β -carotene diet (HR-C group); and low zinc/magnesium and lycopene diet (HR-L group).

The researchers found that in the HR group, mice developed clinical and histological AD-like dermatitis. Xerosis and wrinkle-like [skin](#) changes developed in the HR-C and HR-L groups, but they were milder than in those of HR group [mice](#). Epidermis thickening and inflammatory cell infiltration in the skin was statistically less in the HR-C and HR-L versus the HR group. Compared with the HR group, the concentration of thymus and activation regulated chemokine in the skin of the HR-L group and concentration of CCL27 in the skin of the HR-C group were significantly lower.

"In conclusion, per os administration of β -carotene or lycopene prevents AD-like symptoms in association with a suppression of T-helper 2 chemokines in a murine model," the authors write. "Ingestion of carotenoids may be beneficial for patients with AD."

More information: [Abstract](#)
[Full Text \(subscription or payment may be required\)](#)

Copyright © 2016 [HealthDay](#). All rights reserved.

Citation: Beta-carotene, lycopene prevent dermatitis in murine model (2016, March 24) retrieved 23 April 2024 from

<https://medicalxpress.com/news/2016-03-beta-carotene-lycopene-dermatitis-murine.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.