

Staphylococcus aureus virulence tied to atopic dermatitis in infants

13 July 2020



quorum-sensing system. In mice, expression of a functional Agr system in *S. aureus* was necessary for epidermal colonization and AD-like inflammation induction.

"These studies show that retention of *agr* virulence is associated with increased *S. aureus* skin colonization and development of AD in Japanese [infants](#)," the authors write.

One author disclosed financial ties to Boehringer Ingelheim.

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

Copyright © 2020 [HealthDay](#). All rights reserved.

(HealthDay)—Skin colonization by *Staphylococcus aureus* is associated with the risk for developing atopic dermatitis (AD), and infants who do not develop AD primarily exhibit acquisition of dysfunctional mutations in the *S. aureus* quorum-sensing system, according to a study published in the July 8 issue of *Science Translational Medicine*.

Yuumi Nakamura, M.D., Ph.D., from the Chiba University Graduate School of Medicine in Japan, and colleagues performed whole-genome sequencing of *S. aureus* strains isolated from the cheek skin of 268 Japanese infants at 1 to 6 months old to examine the role in AD development.

The researchers found that regardless of AD outcome, about 45 percent of infants were colonized with *S. aureus* at 1 month. At 6 months of age, skin colonization with *S. aureus* was associated with an increased risk for developing AD. Strains from 6-month-old infants who did not develop AD primarily exhibited acquisition of dysfunctional mutations in the *S. aureus* Agr

APA citation: Staphylococcus aureus virulence tied to atopic dermatitis in infants (2020, July 13) retrieved 15 January 2021 from <https://medicalxpress.com/news/2020-07-staphylococcus-aureus-virulence-tied-atopic.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.