Medical Xpress

Ascorbic acid patch reduces wrinkles due to photoaging

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(HealthDay)—An ascorbic acid (AA)-loaded dissolving microneedle (DMN) patch is feasible and has anti-wrinkle effect, according to a study published online Dec. 9 in the *International Journal of Cosmetic Science*.

Chisong Lee, from Yonsei University in Seoul, South Korea, and colleagues conducted a double-blind, placebo-controlled, crossover trial to examine the skin application feasibility and anti-wrinkle effect of an AA-loaded DMN patch. Twenty-three subjects (average age, 49.0 years) with crow's feet were selected; participants applied the AA-loaded DMN and blank DMN patches on different sides of their face every four days.

The researchers found that the Global Photodamage Score (GPS) of the AA-loaded DMN patch group decreased after 12 weeks, while there was no change for the blank DMN patch. At 12 weeks after applications, the

difference in GPS between the AA-loaded versus blank patch was statistically significant. Using a visiometer in the skin replica analysis, the skin roughness, maximum roughness, and average roughness values were significantly lower at 12 weeks after application of the AA-loaded DMN patch versus the blank DMN patch.

"In this study, close examination of an AA-loaded DMN patch for an anti-wrinkle effect was conducted with in vitro and clinical studies," the authors write. "These patches can be used efficiently in cosmetics given their patient usability and efficacy for wrinkle improvement."

Several authors were employed by biotechnology and dermatology companies.

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

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