The Intersection of Contact Dermatitis and Nails: What’s New

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DISCLOSURE OF RELATIONSHIPS WITH INDUSTRY

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S013 The Intersection of Contact Dermatitis and Nails: What’s New

DISCLOSURES

Fotofinder: Consultant, Erconia Laser: PI, Springer & Verlag, Taylor&Francis: Author-Royalties, Karger: Editor in chief
Allergic psoriasiform reactions from gel manicure

Onycholysis and subungual hyperkeratosis of all fingernails

Mattos Simoes Mendonca M, LaSenna C, Tosti A. Severe Onychodystrophy due to Allergic Contact Dermatitis from Acrylic Nails. Skin Appendage Disord. 2015 Sep;1(2):91-4.
Gel polish manicures

The base contains photo-initiators and UV-curable acrylate oligomers.

Most gels contain photoinitiators that react in light wavelengths of 340 to 380 nanometers.

During the curing process, solvents evaporate, and small channels connected by acetone-dissolvable polymer form in the layer of nail polish.
Gel polish manicures

The nails must then be cured by UV-A rays after each coat.

Nail salons use fluorescent UV lamps or light-emitting diode (LED) lights that require a shorter exposure time.
Gel polish manicures

Removal of gel manicures requires soaking the nails with 100% acetone for 10-15 minutes.
Gel Polish Manicure

Home made kits
became recently
available

More commonly
responsible for
sensitization

Dahlin et al. Several cases of undesirable effects caused by methacrylate ultraviolet-curing nail polish for non-professional use. Contact Dermatitis. 2016 Sep;75(3):151-6
Contact Dermatitis from Gel Polish Manicure

Allergic psoriasiform reactions
Pterygium inversum
Allergic contact dermatitis
Allergic psoriasiform reactions

Treatment

Short course of systemic steroids

Topical steroids
Take home message

Acrylate allergy from polish gel manicure might resemble psoriasis

More common with home kits

Patch tests and treat with oral steroids
SHORT REPORT

Pterygium inversum unguis secondary to gel polish

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Abstract

Background  Pterygium inversum unguis (PIU) is characterized by the abnormal adherence of the hyponychium to the ventral surface of the nail plate. It can be both unsightly and painful, resulting in morbidity for patients. Gel polish is a popular nail cosmetic that has been reported to cause several complications. PIU may be another adverse outcome.

Objective  To highlight a newly recognized adverse effect of a popular beauty technique.

Methods  This retrospective and prospective case series reports 17 women who developed PIU after gel polish use. All study-related activities occurred at a University of Miami dermatology outpatient clinic.

Results  All 17 subjects developed PIU after two to five years of gel polish application. Nine of 17 patients reported using both UVA and LED light to cure gel polish. Of the remaining eight, five used LED light only and three did not know or could not remember. All but two patients had a resolution of PIU a few weeks after switching from gel polish to regular polish manicures.

Conclusion  While it remains undiscovered whether PIU is related to chemicals present in the gel polish or to the application and/or removal process of such, patients and dermatologists should be aware of the potential risks of gel manicures.

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Pterygium inversum unguis due to Gel Polish Manicure

17 patients

two to five years of gel polish application

most of them used LED lamps for gel curing

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Pterygium inversum unguis secondary to gel polish JEADV 2017
Pterygium inversum due to gel polish manicure

Reversible in most cases

Pain, numbness and burning during light exposure common

Most of our cases used LED lamps for gel curing

Acetone and LED exposure?
Allergic contact dermatitis from gel polish manicure

- Fingertip fissuring
- Paronychia
- Hemorrhagic onycholysis
- Airborne dermatitis

Spencer et al. Acrylate and methacrylate contact allergy and allergic contact disease: a 13-year review. Contact Dermatitis. 2016 Sep;75(3):157-64.
Dahlin et al. Several cases of undesirable effects caused by methacrylate ultraviolet-curing nail polish for non-professional use. Contact Dermatitis. 2016 Sep;75(3):151-6
Allergic contact dermatitis from gel polish manicure

2HEMA and 2HPMA most commonly positive
Thank you!

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