

# **An open clinical investigation on clinical dermatoscopy, OCT and RCM visible effects of application of a new topical product for 6 months on brittle nails and weak nails with rough surface and/or tendency to break**

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## **Introduction & Objectives**

Nail brittleness is a common complaint characterized by weak nails with rough surface and/or tendency to split, flake and crumble. This nail alteration can be a consequence of factors that alter the nail plate production or factors that damage the nail plate, such as cosmetics (permanent and non-permanent nail lacquers), psoriasis, lichen planus, ageing, chemotherapy, other drugs and anaemia.

The aim of our study was to evaluate the effectiveness, tolerability and patient's compliance of a new water-soluble nail lacquer with silicon and keratin synthesis booster product for brittle and weak nails.

## **Material & Methods**

30 patients of both sexes, aged >18 years, affected by nail brittleness were prescribed a new topical therapy to be applied on the affected nails once a day for 6 months. The new product is dispensed by a pencil unit with a brush and has to be applied on the entire edge of the nail, cuticle included. Periodic evaluation of treatment efficacy was performed by standardized photography and dry video-dermoscopy of the target nail at baseline (V1), after 15 days (V2), 1 month (V3), 3 months (V4) and 6 months (V5). The treatment efficacy was evaluated by the experimentator through Global and Trichoscopy Assessment Scale and by patients through a patient global assessment and

a specify questionnaire. 10 patients also underwent to Optical Coherence Tomography (OCT) in order to have a further objective parameter of efficacy evaluation.

## **Results**

All patients concluded the study, with marked improvement of nail weakness and appearance. No side effects were recorded. All patients judged the treatment easy to apply and effective.

## **Conclusions**

This new water-soluble nail lacquer with silicon and keratin synthesis booster is an effective and safe option for the treatment of nail brittleness and damages.