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Clinical and Instrumental Objective Evidence of the Efficacy of a New Water-Based Nail-Strengthening Solution Containing Pistacia lentiscus and Hyaluronic Acid Applied for Up to 6 Months to Improve the Appearance of Weak, Brittle Nails.

Piraccini BM, Granger C, Alessandrini A, Brandi N, Bruni F, Mandel VD, Pellacani G, Starace M. Dermatol Ther (Heidelb). 2020 Feb;10(1):119-131. doi: 10.1007/s13555-019-00343-0. Epub 2019 Nov 20.

## **ABSTRACT**

INTRODUCTION: Brittle nails are fragile or split nails; they affect 20% of the population and may be primary or secondary to different conditions. The aim of our studies was to evaluate the efficacy and tolerability of a new water-based nail-strengthening treatment containing hyaluronic acid and Pistacia lentiscus with daily application for a period of 1-3 months for one study (n?=?30) and up to 6 months for a second study (n?=?30). METHODS:In total, we enrolled 60 patients of both sexes with brittle and weak nails due to primary or secondary causes and evaluated the efficacy of this new product using subjective and objective methods: clinical evaluation, assessment of photographs, onychoscopy evaluation, investigator and patient global assessment, dynamic optical coherence tomography (D-OCT) and reflectance confocal microscopy (RCM). RESULTS: Studies subjects presented a statistically significant improvement in global assessment scale (GAS) scores at 14 days (GAS?=?1.7?±?0.6), 1 month (GAS?=?1.4?±?0.7) and at 3 months (GAS?=?1±0.7) versus the GAS score obtained before treatment  $(1.9?\pm?0.5)$  (p?<?0.0001). From the Italian study at 6 months (n?=?30) 76% of the patients had an improvement in their nail appearance. Reduction in nail plate roughness with improved nail resistance and decreased distal breakage were the most evident benefits, demonstrated on clinical and instrumental evaluations. No side effects were reported. All patients reported an improvement in nail appearance after using the product for 1 month, 3 months and 6 months, and had a positive opinion on the product. CONCLUSIONS: This new product is an effective, safe, and easy-to-use option for topical treatment of brittle nails and primary nail fragility and an adjuvant therapy in secondary nail fragility. Moreover, its ease of application and cosmetic qualities allow good compliance. FUNDING:ISDIN. KEYWORDS:Brittle nails; Nails; OCT; Onychoscopy; RCM; Weak nails

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