

Studies

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Polypodium leucotomos as an Adjunct Treatment of Pigmentary Disorders.

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Author information

Abstract

INTRODUCTION: Extracts of the tropical fern *Polypodium leucotomos* appear to possess beneficial properties for the skin attributed to the presence of numerous compounds within the extract that have antioxidant and photoprotective properties. Orally administered *Polypodium leucotomos* may provide protection against the detrimental photoaging effects of sunlight and can also help reduce the frequency and severity of polymorphous light eruption. *Polypodium leucotomos* has also been shown to be beneficial for the prevention and potential treatment of several aesthetically relevant conditions.

OBJECTIVE: The purpose of this review is to investigate the beneficial role of *Polypodium leucotomos* as an adjunct treatment for vitiligo, melasma, and postinflammatory hyperpigmentation.

RESULTS: Based on a review of relevant literature including the results of a randomized, placebo-controlled study, the oral administration of *Polypodium leucotomos* significantly improved the severity of melasma in women after 12 weeks. Three randomized, double-blind, placebo-controlled studies have demonstrated significant improvements in vitiligo when oral *Polypodium leucotomos* therapy was combined with psoralens plus ultraviolet A and narrowband ultraviolet B. No controlled studies have assessed the efficacy of *Polypodium leucotomos* for the treatment of postinflammatory hyperpigmentation; however, its known antioxidant and anti-inflammatory properties and demonstrated effectiveness for melasma support its use for treating this condition. No adverse events have been associated with the use of *Polypodium leucotomos*.

CONCLUSION: In addition to preventing many harmful effects associated with sunlight exposure, orally administered *Polypodium leucotomos* also appears to provide adjunctive benefits in treating vitiligo, melasma, and may have the potential to help with postinflammatory hyperpigmentation.

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[Australas J Dermatol](#). 2014 Aug;55(3):169-75. doi: 10.1111/ajd.12163. Epub 2014 Mar 17.

Nicotinamide and the skin.

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 **Author information**

Abstract

Nicotinamide, an amide form of vitamin B3, boosts cellular energy and regulates poly-ADP-ribose-polymerase 1, an enzyme with important roles in DNA repair and the expression of inflammatory cytokines. Nicotinamide shows promise for the treatment of a wide range of dermatological conditions, including autoimmune blistering disorders, acne, rosacea, ageing skin and atopic dermatitis. In particular, recent studies have also shown it to be a potential agent for reducing actinic keratoses and preventing skin cancers.

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Acta Biochim Pol. 2012;59(1):43-7. Epub 2012 Mar 17.

Cosmetic benefits of astaxanthin on humans subjects.

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Abstract

Two human clinical studies were performed. One was an open-label non-controlled study involving 30 healthy female subjects for 8 weeks. Significant improvements were observed by combining 6 mg per day oral supplementation and 2 ml (78.9 µM solution) per day topical application of astaxanthin. Astaxanthin derived from the microalgae, *Haematococcus pluvialis* showed improvements in skin wrinkle (crow's feet at week-8), age spot size (cheek at week-8), elasticity (crow's feet at week-8), skin texture (cheek at week-4), moisture content of corneocyte layer (cheek in 10 dry skin subjects at week-8) and corneocyte condition (cheek at week-8). It may suggest that astaxanthin derived from *H. pluvialis* can improve skin condition in all layers such as corneocyte layer, epidermis, basal layer and dermis by combining oral supplementation and topical treatment. Another was a randomized double-blind placebo controlled study involving 36 healthy male subjects for 6 weeks. Crow's feet wrinkle and elasticity; and transepidermal water loss (TEWL) were improved after 6 mg of astaxanthin (the same as former study) daily supplementation. Moisture content and sebum oil level at the cheek zone showed strong tendencies for improvement. These results suggest that astaxanthin derived from *Haematococcus pluvialis* may improve the skin condition in not only in women but also in men.