Background: Melasma is a chronic, hyperpigmentation disorder of the skin. The pathogenesis of melasma is complex and many therapeutic modalities have been used, although with limited success, because melasma has a high tendency to recur.

Objective: To evaluate the efficacy and safety of a novel skin care product for the treatment of melasma.

Materials and Methods: Four adult females with mixed- and dermal-type melasma of the face were treated in clinic once weekly for six weeks with a novel skin care product and received additional topical home treatment products to complete therapy. Home treatment was extended at the end of the six weekly sessions for three months until the final visit. Clinical evaluation was performed with MASI score, and Wood’s lamp examination at baseline and at the end of the home treatment period. Pigment distribution was also evaluated by reflectance confocal microscopy.

Results: At baseline, 3 of the 4 patients presented a mixed-type melasma while the fourth patient had a dermal melasma. At the end of the home treatment, melasma improved in all 4 patients. There was a slight decrease in the MASI score but Wood’s lamp examination showed a marked improvement with almost complete disappearance of epidermal melasma. RCM revealed an important decrease in brightness at epidermis and dermo epidermal junction. No adverse event was reported.

Conclusions: This is a novel dermocosmetic treatment that determines an improvement of melasma at the clinical and cellular level without adverse events. RCM is a non-invasive technique that provides microscopic information and is useful in the classification and management of melasma.