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A powerful and sustainable natural plant extract visibly minimizing the appearance of stretchmarks on the body

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Introduction:

- In this Covid-19 pandemic period, the level of sedentary lifestyle reached records. Eating habits changed. With documented tendencies to gain weight, the probability to get stretchmarks increased [1]. The change in aesthetic may generate a decrease of self-esteem, and the need to have an efficient solution against stretchmarks is real, still challenging to achieve *in vivo*.
- We investigated the ability of a natural plant extract, *Papaver rhoeas* extract (MAS-30, INCI : Caprylic/Capric Triglyceride, *Papaver Rhoeas* Extract (for China: Papaver Rhoeas Flower Extract), Tocopherol) in a placebo-controlled, double blind *in vivo* study, for its ability to lessen the visibility of stretchmarks. Volunteers were *postpartum* women with recent pink stretchmarks on the stomach, the buttocks, or thighs and main results are presented in this poster.

Materials & Methods:

***In vivo* study design**

- 56-days double-blind *in vivo* study
- Before/After, Active vs Placebo
- 24 Caucasian female subjects, >18 years old having given their written consent
- *Postpartum* subjects having at least 2 recent stretch marks on each side of the body (less than 6 months) pink* and comparable on the stomach, the buttocks, and the thighs

D0 – – – – – – – D28 – – – – – – – – D56

2x daily applications of o/w emulsions cont. 1% MAS-30, and the placebo emulsion on selected stretchmarks and surrounding1

Read out parameters

- Colorimetric measurement using a Minolta CM700-d spectrophotometer®: L* and a* parameters
- Illustrative pictures (Nikon® D90 and SONY® A6600
- Clinical grading by a dermatologist (not shown here)
- Centimetric measurements (partial results shown)
- Subject self-evaluation using a questionnaire

*red colored stretchmarks (*striae rubrae*) correspond to the beginning of the marks. Such scarring shows the blood vessels through, hence the red color pop. They typically occur when the skin stretches due to the rapid increase in size of underlying structures.

Results & Discussion:

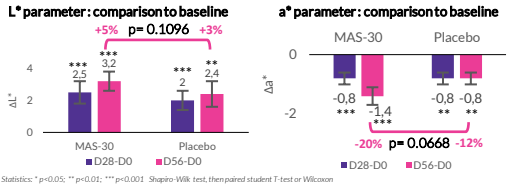

Figure 1: Spectrophotometric measurements: Variation of L* and a*parameters testing an emulsion containing 1% MAS-30 and the placebo.

MAS-30: Lightness of stretchmarks is increased; Redness of stretchmarks is decreased. Products comparison shows a tendency in favor of MAS-30

Results & Discussion:

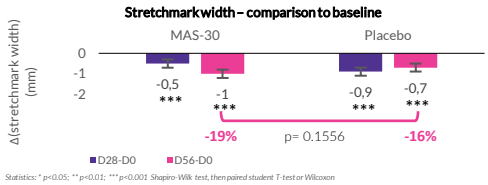

Figure 2: Centimetric measurements: stretchmark width for an emulsion containing 1% MAS-30 and for the placebo

Decrease in average stretchmarks width

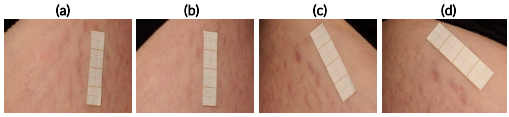

Figure 3: Illustrative pictures showing the evolution of stretchmarks for a subject. **(a)** D0, no treatment **(b)** D56 after treatment with 1% MAS-30 **(c)** no treatment **(d)** D56 after treatment with placebo

Minimization of the appearance of stretchmarks. Especially visible for MAS-30

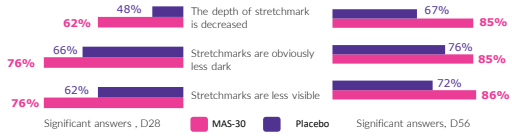

Figure 4: Subjective evaluation questionnaire for both test products 1% *Papaver rhoeas* extract in an emulsion (MAS-30) and the placebo

Subjects prefer the emulsion containing MAS-30

- Our *in vivo* study shows that both test products had significant effects on stretchmark appearance with a tendency in favor of the emulsion with 1% *Papaver rhoeas* extract (MAS-30) especially in the case of redness reduction, lightness increase. These results well correlate with illustrative pictures and with previous *in vivo* results showing the ability of MAS-30 to notably increase skin elasticity in volunteers having cellulite on their thighs and/or gluteus and to increase skin radiance [2], [3].
- Positive effect of the placebo might be attributed to the effect of the massage of the stretchmarks with both products until absorption into the skin. Some studies reflect the benefits of massage alone [4]-[8].

Conclusions:

MAS-30 represents a natural and sustainable solution to help minimizing the appearance of stretchmarks and future investigations should be undertaken for further validation. Including more volunteers, longer duration of a study, selection of an alternative placebo basis formulation could be parameters to consider when setting up a new study protocol.

References:

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