



AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

## ANTI-AGING EFFICACY OF MELATONIN-BASED CREAM: CLINICAL AND INSTRUMENTAL SKIN EVALUATION.

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**Background:** Melatonin is a strong mitochondrial, cytoprotective and antioxidant molecule. Topical melatonin has shown to improve clinical signs of skin aging. Melatosphere™ is a new delivery system able to improve stability and skin penetration of melatonin when used in topical formulations. No clinical studies, using objective instrumental data, are available so far regarding positive effect of Melatosphere™ in improving wrinkles in women with mild-to-moderate skin aging.

**Study Aim:** We evaluate, in an open prospective, evaluator-blinded trial, the effects on skin texture of 2 months treatment with a Melatosphere™ based cream.

**Subjects and Methods:** Fifteen women aged >45 years with mild to moderate facial skin aging (Glogau score  $\geq 2$ ) were enrolled after their informed consent. An ANTERA 3D computer-assisted skin analysis evaluation for the assessment of coarse and fine wrinkles of the periorbital area and melanin content was performed at baseline and after 2 months of treatment. An evaluator-blinded Investigator Global assessment of skin elastosis, roughness, level of dyschromia, skin dryness and presence of actinic damage was also performed at the same time point using a 4-grade score from 0 (no sign) to 3 (severe sign).

**Results:** At baseline the mean (SD) IGA score was 8.2(1.0). After 2 months the IGA score significantly decrease to 4.2(1.4) (a 49% reduction) ( $P=0.0007$ ). ANTERA 3D evaluations showed a significant reduction in skin coarse and fine wrinkles volume in the target area of 31% and 18%, respectively. Melanin content was reduced significantly by 10%.

**Conclusion:** Topical melatonin vehiculated in Melatosphere™ improves in the short-term signs of skin aging and skin wrinkles evaluated by ANTERA 3D device in women with mild to moderate skin aging.

