

## Short test evaluation of the anti-wrinkles efficacy of topical adhesive pads

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*Introduction.* In the last decades, in dermo-cosmetic field, a lot of cosmetic products, invasive treatments and medical devices were popping up to improve aged skin. Recently several cheap and innovative products called anti-wrinkle pad adhesive appeared but their efficiency against wrinkles is not really certain. Theoretically this product is intended to reduce local muscular contraction getting a reduction of the existing wrinkles and forming new dynamical wrinkles. Commercial advertisements claims that the utilization of pads can temporarily delete wrinkles with just an application and last longer with a continuous application. A recent study demonstrated that using this product for a month don't have any positive effect on forehead wrinkles but still not demonstrate if this pad have the real ability to temporarily reduce wrinkles (Ryan 2009). For this reason this work focus on the efficiency of this pad in crow's feet temporarily reduction.

*Materials and Methods.* The anti-wrinkles efficiency was valued on 20 volunteers at baseline and 15, 30, 60 minutes after short time (30 minutes) application of the anti-wrinkles pad using Cutometer MPA580® (Courage + Khazaka Electronic GmbH, Köln, Germany) and siliconic replica technique analyzed with SEM FEI Quanta 200 in low vacuum and profilometric analysis software 3D MEX® ( Alicona Imaging, Graz, Austria). Pads are made out of plastic with a vertical strong support fixed at a soft membrane covered by adhesive gel made by emollient and anti-wrinkles materials. Roughness and elasticity differences on values after pads application were valued using analysis of variance (ANOVA).

*Results.* The short time application of the pad caused a relevant reduction of all roughness standards parameters (Ra, Rt, Rz, Rp, Rv) till 15 minutes after the treatment ( $p < 0,001$ ). These changes not happened in the contralateral area (non treatment control test). Within 30 minutes after the treatment, all roughness parameters reverted to normal baseline values. Analysing the elastometric measure average, it was not noticed any relevant standards changes (R0, R5, R6 e R7) after the treatment.

*Conclusions.* Finally results obtained demonstrate that the sporadically application for 30 minutes of anti-wrinkle pad have the capacity to stretch temporarily the skin.

Ryan WR, Most SP. A Prospective Evaluation of the Efficacy of Topical Adhesive Pads for the Reduction of Facial Rhytids. Arch Facial Plast Surg. 2009 Jul-Aug;11(4):252-6.

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