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#### Confocal microscopy and imaging profilometry: A new tool aimed to evaluate aesthetic procedures.

*Fabbrocini G, Mazzella C, Montagnaro F, De Padova MP, Lorenzi S, Tedeschi A, Forgione P6, Capasso C, Sivero L, Velotti C, Russo D, Vitiello R, Ilardi G. J Cosmet Laser Ther. 2017 Feb;19(1):59-63. doi: 10.1080/14764172.2016.1247962.*

#### ABSTRACT

According to the American Academy of Aesthetic Plastic Surgeons, more than 11 million cosmetic surgical and nonsurgical procedures were performed by board-certified plastic surgeons, dermatologists and otolaryngologists in the United States, totaling more than 12 billion dollars. We performed a retrospective observational multi-centric study on patients treated with a non-animal origin cross-linked hyaluronic acid with different molecular weights for nasolabial folds, evaluating through a new imaging system, profilometric techniques with the confocal microscopy, the durability, the efficacy and the safety of this product. From 25 patients, 150 silicone casts were obtained: 75 casts of the right nasolabial fold and 75 casts of the left nasolabial fold. Roughness arithmetical average of the right fold at T2 decreased by 50% versus T0 and by 40% compared to T1; at T2, it decreased by the 45% versus T0 and by 35% compared to T1. No side effects were reported. Results proved that the analysis of the skin microreliefs through confocal microscopy is a new imaging system that allows to evaluate with precision and safety the results of aesthetic treatments such as fillers objectively. KEYWORDS: Confocal microscopy; hyaluronic acid fillers; profilometry PMID: 27911109 DOI: 10.1080/14764172.2016.1247962