

AN OPTICAL METHOD FOR ASSESSING THE MORPHOLOGICAL FEATURES OF FACIAL SKIN PORES AND THEIR AGE-RELATED CHANGES

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OBJECTIVE

Skin pores are common and benign facial signs that generate frequent aesthetic concerns or complaints.

A new device has been developed and applied to validating studies, aiming at best describing skin pores as they are self-perceived, i.e. their anatomic features and their possible alterations with age.

METHODS

P A N E L

A study was carried out on the cheeks of 67 Caucasian women of three age clusters ([18-30]; [30-50]; [50-70] y.o). By labelling each detected skin pores in a given region of interest, a statistically significant impact of age upon their morphological features was observed and quantified.



T O O L

DermaScore Plus® is an imaging device dedicated to a direct observation and acquisition of various characteristics of the skin surface (*Color, Pigmented skin poresots, Dryness, Optical properties or Relief*). Images are captured under a high magnification and under different lighting configurations to highlight the skin relief, based upon parallel polarized images.



S O F T W A R E

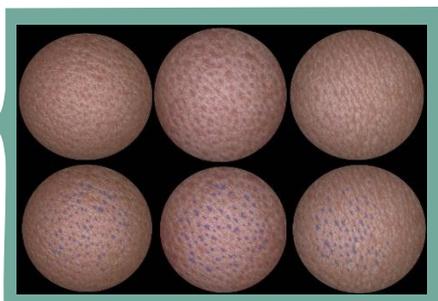
A dedicated software allows skin pores to being detected and their morphological parameters to being extracted and computed (*elongation, convexity, area*).



RESULTS

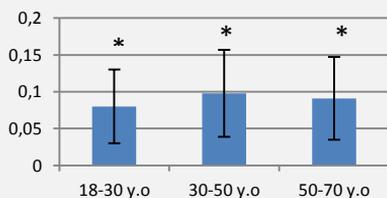
The sizes of skin pores in the youngest age cluster are significantly lower ($p < 0.05$) than those of the two others

With ageing, skin pores become elongated, dilated and of a less marked delimitation of their shape boundaries. As previously observed by clinicians, such changes could now be objectively quantified through this new device and its associated software.

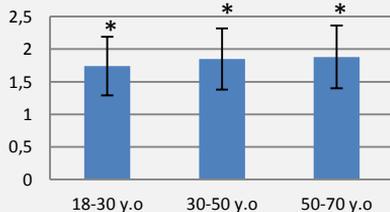


Evolution of Pores Elongation with age : from left to right, respectively, subject image of skin pores from age clusters 1, 2 and 3.

Pore Size (mm²)



Pores elongation with age



CONCLUSION

DermaScore Plus®, as an innovative tool, gives better answers to patient's or consumer's concerns, which is a huge achievement to explore skin features, and to objective assessments of skin care efficacy.