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### Assessment of skin photoaging with reflectance confocal microscopy.

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#### ABSTRACT

**BACKGROUND/PURPOSE:** Increased interest in antiaging methods, mandates a development of reliable noninvasive technique to assess skin aging. In this study, we aimed to determine the effects of photoaging at histopathologic resolution by means of reflectance confocal microscopy.

**METHOD:** The sun-exposed malar area, the anterior aspect of ear lobule, and the sun-protected posterior aspect of ear lobule had been evaluated in 120 volunteers from different age groups over 10 previously reported and new confocal parameters for skin aging. **RESULT:** The sun-exposed areas revealed more frequent irregular honeycomb pattern, polycyclic papillary contours, coarse collagen, huddled collagen, curled bright structures with higher epidermal thickness, and furrow depth values. However, the incidence of thin reticulated collagen and the number of dermal papillae were statistically higher on the sun-protected posterior aspect of ear lobule. **CONCLUSION:** Reflectance confocal microscopy is a reliable diagnostic technique for evaluation of skin photoaging with objective criteria. With the new emerging compact models it is possible to scan even the least accessible body parts with no discomfort to the patient, which offers the possibility to assess the effect of antiaging applications and to identify early signs of solar damage in cosmetically sensitive areas.