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Mobile connected dermatoscope and confocal laser scanning microscope: a useful combination applied in facial simple sensitive skin.

Zha WF, Song WM, Ai JJ, Xu AE.; Int J Cosmet Sci. 2012 Aug;34(4):318-21. doi: 10.1111/j.1468-2494.2012.00726.x.

ABSTRACT

Little is known as the effects of mobile connected dermatoscope services on diagnostic accuracy for sensitive skin. Confocal laser scanning microscope (CLSM) can non-invasively measure the thickness of epidermis. Combination of the two devices to observe sensitive skin may receive unexpected effects. To evaluate the application effect on sensitive skin with the combination of Handyscope and confocal laser scanning microscope. Twenty simple sensitive-skinned patients and 20 volunteers participated in the study. Cheek, typically, dermoscopic images were obtained from patients, and the changes in the skin texture were observed. Their epidermis thicknesses as well as the volunteers' were measured so that the thicknesses of the two groups were compared. Dermoscopic pictures of the skin texture obviously showed that dilated capillaries looked like earthworms with pigmented patches more or less floating above, and skin roughness as well as deepened dermatoglyph were also conspicuously present in some patients. The mean epidermal thickness of the patients was 79.01 μ m and the volunteers' was 85.78 μ m. The difference between the two groups reached 6.77 μ m. There was a statistical significance ($P = 0.001$). Mobile connected dermatoscope and confocal laser scanning microscope might be the choice for simple sensitive skin investigation.