

Cosmetic & Pharmaceutical Research > Cosmetic & Pharmaceutical Research > Hair and adnexia

2

Analysis of the efficiency of hair removal by different optical methods: comparison of Trichoscan, reflectance confocal microscopy, and optical coherence tomography.

Kuck M, Schanzer S, Ulrich M, Garcia Bartels N, Meinke MC, Fluhr J, Krah M, Blume-Peytavi U, Stockfleth E, Lademann J.; J Biomed Opt. 2012 Oct;17(10):101504. doi: 10.1117/1.JBO.17.10.101504.

ABSTRACT

Noninvasive diagnostic tools, such as Trichoscan®, reflectance confocal microscopy (RCM), and optical coherence tomography (OCT), are efficient methods of hair shaft and growth evaluation. The aim of this study was to carry out a comparative assessment of these three medical procedures by measuring the hair shaft and hair growth after hair removal for a defined period of five days. The application of these techniques was demonstrated by measuring hair growth on the lower leg of six female volunteers. After removal of the hair shaft with a shaving system, the hair follicle infundibula and the length of the growing hairs were measured with the Trichoscan®, RCM, and OCT method. All three methods are reliable hair measuring tools after hair removal. Trichoscan® is best suited in the implementation of hair growth measurement and RCM in the analysis of hair follicles, whereas the OCT system can be consulted as an additional measurement for the evaluation of the hair follicle and length.