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Confocal microscopy in adult women with acne.

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ABSTRACT

BACKGROUND: Acne is an inflammatory disease of the pilosebaceous follicle, affecting 41-54% of adult women, with a particular form that involves the mandible. **METHODS:** We characterized infundibulum morphology in two groups of adult women using reflectance confocal microscopy. First, we investigated acne visually "healthy zones" on the forehead in 15 adult women with diffuse acne and compared with acne-free controls. We then compared healthy forehead and affected mandibular zone in 15 acne patients with mandibular involvement. Exposed results had a $P < 0.05$. **RESULTS:** Seven hundred and ninety-one follicles were observed on apparently healthy skin of 15 adult women with acne, with a larger diameter, thicker (68%), and hyper keratinized (65%) follicle border, and more keratin plugs (44%) than in controls. In the second group of 15 adult women with mandibular acne, we compared 569 follicles in the mandibular zone and 475 on forehead. In the mandibular area, follicles were significantly larger, thicker (76%), more hyper keratinized (72%), with more keratin plugs (47%) and increased inflammation (23%) compared with the forehead area. In the mandibular area, 0.2% of follicles showed isolated inflammation without hyper keratinization, and 15.3% had both thickened borders with an onion-like appearance and keratin plugs associated with inflammation. **CONCLUSIONS:** Hyper keratinization was higher in healthy skin of adult women with acne compared with controls, confirming that microcomedo is crucial in the development of acne lesions. We also demonstrate that the repartition of comedones and microcomedones is inhomogeneous with a great number in the mandibular area where acne lesions are located. © 2018 The International Society of Dermatology.

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