

Face Acne Capturing System Using Semicircular Rotating Camera and Illuminator

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Acne vulgaris is a chronic and common inflammatory disease of the pilosebaceous unit. For continuous and effective skin care, computerized acne photographic systems are commonly used. But the systems do not provide screening for the entire face. To overcome this drawback, we devised a face acne capturing system which is composed of a DSLR camera, illuminations, and a rotating mount. Patient's chin was placed on a chin orthotic. The face was viewed and captured in real time using PC connected to the camera. The square-shape frame CCFL provides uniform illumination to the face. Semi-circular rotatable mount enables the camera to take pictures of curved surfaces from the entire face. Acquired images have shown that inflammatory acne regions were properly detected after color space conversion, intensity adjust, morphological operations and binarization methods. By comparing the result with the manual counting by a dermatologist, the proposed system achieves reliability in analyzing acne.

References

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