



DERMOSCOPY AND SKIN IMAGING

A NEW METHOD FOR EVALUATING CAPILLARIES OF PROXIMAL NAIL FOLD

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Background: Capillaroscopy is a non-invasive technique which is usually used for evaluate capillaries of nail fold area. A range of optical devices can be used to perform capillaroscopic examination. Digital videocapillaroscope which has been stated as preferred method is not widely available. Here we describe a new method especially for dermatologists.

Objective: Raynaud's phenomenon (RP), the foremost indication for capillaroscopy. RP can be primary (idiopathic) or secondary related to underlying disorders. Capillaroscopy is a valuable method to differentiate one from another. Additionally capillaroscopy has a role in the prediction of clinical complications in connective tissue diseases. In this situations dermatologists and rheumatologists need to collaborate. We aimed to use a method for visualizing capillaries without help of videocapillaroscope.

Materials and Methods: We used an handheld dermatoscope (DermLite®II Hybrid M;3 Gen, San Juan Capistrano, CA, USA), a camera (Canon® EOS M3, 24.2 megapixel; Canon, Tokyo, Japan) with 18-55 mm image stabilizer lens and two rings to mount the dermatoscope to the camera. Dermatoscope light was polarized. Ultrasound gel was applied on proximal nail fold before examination. The camera lens was set at 55 mm zoom. Camera's focus mode was adjusted as auto and manual mode together. After the autofocus is achieved by pressing the shutter halfway, the lens can be adjusted manually to focus on what is aimed (capillaries) from the objects placed at various levels. Manual focusing is important to avoid focusing artificial materials between dermatoscope and skin surface such as textile or dust. During manual focusing, automatic digital zoom allows high sharpness.

Results: The images obtained by the above mentioned method seem to provide clinicians quite satisfying information about the morphology and pathological changes of proximal nail fold capillaries.

Conclusions: It can be considered as an easily accessible, portable and relatively inexpensive method to evaluate nail fold capillaries.

