Ex vivo histological correlation using dermoscopy



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TECHNOLOGICAL CHALLENGE

Microscopic examination by dermatopathology is the gold standard for the histopathological evaluation of dermatologic specimens. In rare situations, a practicing dermatologist may need to review a glass slide histopathological specimen without access to a microscope (Fig 1). What is your solution?

SOLUTION

Dermoscopy is a noninvasive, convenient approach that is increasingly used by clinicians. Dermoscopy devices provide a 10× magnification that can be useful in our case. We used a DL200 Hybrid Dermlite with polarized light to get a scanning magnification of the prepared histological sections on top of a white sheet of paper. Dermoscopy pictures of the slide were taken at different zoom magnifications using a cell phone camera.

Despite the low magnification, some distinctive tumor features could be identified (Fig 2). Level of infiltration, thickness, and margin examination can be checked. Direct dermoscopy examination of histological samples might be useful when a microscope evaluation is not available and clinical features correlate with the low magnification findings. If a Mohs laboratory is not included in the surgical area, this represents an easy way to share a mobile photo of marked affected borders to the surgeon. A low ex vivo dermoscopy picture may therefore also be used for mapping in Mohs micrographic surgery.²



Fig 1. A pearly basal cell carcinoma at the inner canthus.

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Fig 2. Zoom ×1.5 Expansive basophilic tumor islands are present in the papillary dermis with retraction artefact.

We propose dermoscopy as a fast and convenient method for a preliminary approach to histological correlation, and it is an interesting complement to definitive microscopic evaluation.

Conflicts of interest

None disclosed.

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