VivaScope
Online Booklet

Medical > In Vivo > Melanoma & Pigmented Lesion Research

17|1 Perioperative confocal microscopy of the nail matrix in the management of in situ or minimally invasive subungual melanomas.

ABSTRACT
BACKGROUND: Although dermoscopy of the nail plate is helpful to discriminate between benign and malignant causes of nail pigmentations, there remain ambiguous cases in which a matricial biopsy is required. When a subungual melanoma is diagnosed histopathologically, a complementary surgical treatment is performed secondarily, the duration of postoperative disability being accordingly prolonged. **OBJECTIVES:** The purpose of our study was to evaluate the feasibility of an intraoperative diagnosis by reflectance confocal microscopy (RCM). **PATIENTS AND METHODS:** Our series included nine consecutive patients who underwent a matricial biopsy for an acquired melanonychia (one benign lentigo and eight melanomas). RCM examination was performed in vivo on the nail matrix after reclination of the nail plate, and/or ex vivo on the fresh tissue biopsy. RCM data were compared with histopathology. **RESULTS:** There was a good correlation between confocal and histopathological features. Seven melanoma cases were unequivocally diagnosed intraoperatively according to the confocal features, whereas the lentigo was correctly classified as a benign lesion according to RCM. The remaining lesion could not be unequivocally classified by RCM and corresponded histopathologically to an early melanoma that required immunostaining to be diagnosed. **CONCLUSIONS:** Intraoperative RCM examination of the nail matrix is an efficient diagnostic approach of melanonychia striata that permits an extemporaneous diagnosis of malignancy and therefore a one-step surgical treatment of in situ or minimally invasive melanoma, reducing dramatically the duration of postoperative disability.