

Medical > In Vivo > Melanoma & Pigmented Lesion Research

172

In vivo confocal reflectance microscopy in melanoma.

Carrera C, Puig S, Malvehy J.; Dermatol Ther. 2012 Sep-Oct;25(5):410-22. doi: 10.1111/j.1529-8019.2012.01495.x.

ABSTRACT

Reflectance confocal microscopy (RCM) enables the noninvasive in vivo imaging of the skin with a horizontal axis and a cellular-level resolution allowing the study of the skin from superficial layers to papillary dermis. It has arisen an important tool in the study of tumors and specially an important role in the characterization of melanoma. Melanocytic lesions present a large number of characteristic findings visible in upper parts of the tumors, such as in the case of melanoma: pagetoid roundish or dendritic cells in superficial epidermis, atypical nests at the dermoepidermal junction, nonedged papillae and atypical nucleated cells in papillary dermis. Several studies have demonstrated that RCM may improve the accuracy in the differentiation of benign and malignant melanocytic lesions as an adjuvant technique to dermoscopy, and three main algorithms have been developed to apply in equivocal lesions. The advantage of in vivo observation in real time of the tumor at the bedside is opening the clinical applications of RCM in the evaluation of melanocytic lesions, and in particular in the study of facial maculae and lentigo maligna melanoma, amelanotic melanoma, and management of subclinical margins, recurrences, or monitoring noninvasive treatment of tumors.