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Pigmented skin lesions assessment with optical coherence tomography

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Objective diagnosis on site, in real time is still a challenge for skin lesions, specifically pigmented skin lesions. Different optical tools are currently under development or clinical implementation process to assist this process. Some of the techniques applied are diffuse reflectance spectroscopy, fluorescence spectroscopy, even confocal fluorescence microscopy. They provide information about biochemical and morphological alterations in the tissue, but no insight on an important for successful treatment parameter- the thickness of the lesion. However, another optical modality could “shine light” on that matter – optical coherence tomography.

Optical coherence tomography has been an established tool for diagnosis in ophthalmology; however, its application as imaging modality in dermatology requires more work in creating guidelines for its application.

The objective of this work is to elaborate on specifying peculiarities of pigmented lesions, specifically malignant melanoma, observed through OCT imaging.

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