SKIN CANCER (OTHER THAN MELANOMA)

THE ROLE OF ULTRA HIGH-FREQUENCY ULTRASOUND IN NON-MELANOMA SKIN CANCERS

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Introduction: The development of non-invasive diagnostic techniques has allowed to improve the early diagnosis in skin tumors, influencing the prognosis of the patients. Various tools can be used for this purpose, such as dermatoscope, confocal microscopy, optical coherence tomography and high-frequency cutaneous ultrasound. VevoMD ultrasound (Visualsonics, Toronto, Canada), provided by ultra high-frequency probes (48,70 MHz), is an innovative tool which analyze the echogenicity (B-mode) and the vascularization of skin lesions (C-mode).

Objective: The aim of this study is to analyse the ultrasonographic-histopathologic correlations in non-melanoma skin cancers using ultra high-frequency ultrasound (B-mode). Moreover, we analyse the presence of vascularitazion with C-mode.

Materials and methods: We report a case series of 60 non-melanocytic skin tumors. Physical and dermatoscopic evaluation were performed in all patients and clinical and dermoscopic pictures of all lesions were acquired. All lesions were removed and histologically examined. Ultrasonographic features were recorded using VevoMD ultrasound (70 MHz probe). B-mode acquisitions were obtained in the longitudinal view. We evaluated the vascularization in all lesions (C-Mode:1.9 cm/sec). The analysis of the ultrasonographic-histopathological correlations was performed.

Results: The ultrasonographic appearance of the lesions was comparable with the histopathologic aspects in all lesions and the area of the lesions was well defined by ultrasonography in small lesions. All lesions showed the presence of vascularitazion.

Conclusions: Ultra high-frequency ultrasound can be considered a useful tool in the early diagnosis of skin tumors and in pre-surgical mapping, reducing the possibility of relapses.