SKIN CANCER (OTHER THAN MELANOMA)

NON-INVASIVE EVALUATION OF THERAPEUTIC RESPONSE OF MULTIPLE ACTINIC KERATOSIS OF FACE AND SCALP TREATED WITH FIELD CANCERIZATION TREATMENTS: PRELIMINARY DATA.

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Introduction: Different non-invasive techniques, such as dermoscopy, can guide physicians in diagnosis and treatment choice of actinic keratosis (AKs) and skin field cancerization. Among them high frequency ultrasound has been used mainly to assess the effects of photodynamic therapy on solar elastosis but there are no study directed to the ultrasound study of AKs response to conventional treatments.

Objective: The aim of this pilot study was to assess and compare clinical, dermoscopical and high frequency ultrasound features in multiple AKs of face and scalp and skin field of cancerization after field-directed treatments.

Matherials and Methods: We 1:1:1 randomized 90 patients with multiple Olsen I/II AKs of the face and scalp to MAL-Photodynamic therapy (MAL-PDT), ingenol mebutate 0.015% gel (IngMeb) and diclofenac 3% gel (DHA). At baseline and 3 months after treatment, clinical (AKs number and area and modified AKASI score), dermoscopical and high frequency (50MHz) features were assessed.

Results: MAL-PDT induced a higher AKASI reduction. All treatments induced a reduction of the subepidermal low echogenic band (SLEB) thickness and an improvement of dermic and SLEB echogenicity. These changes were predominant after MAL-PDT. Dermoscopical reduction of wavy vessels was seen after all treatments but mostly after PDT. No ultrasound or dermoscopical features appeared to be predictive of clinical response.

Conclusions: MAL-PDT was the most effective treatment and ultrasound confirmed its anti-elastotic effect on SLEB. Increased dermal echogenicity after MAL-PDT was confirmed

dermocopically by a reduction of lesion vascularization.