



SKIN CANCER (OTHER THAN MELANOMA)

REFLECTANCE CONFOCAL MICROSCOPY IN MONITORING MEDICAL TREATMENT MODALITIES FOR ACTINIC KERATOSIS AND FIELD OF CANCERIZATION

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INTRODUCTION: Actinic Keratosis (AK) is an intraepithelial keratinocytic dysplasia that could possibly become an invasive Squamous cell carcinoma (SCC). AK diagnosis is based on clinical and dermoscopic examination. Reflectance Confocal Microscopy (RCM) has been widely used to obtain diagnostic clues, avoiding numerous unnecessary skin biopsies. Treatments of AKs are directed to single lesion and field of cancerization.

OBJECTIVE: Our study aims to evaluate the clinical efficacy and the histologic changes induced by piroxicam 0,8% and sunfilters cream, ingenol mebutate gel and photodynamic therapy on AKs (grade I-II) and field of cancerization in 15 patients with phototype II-III.

MATERIALS AND METHODS: Fifteen patients (10 male, median age 71, range 64-78) were enrolled. Five were treated with piroxicam 0,8% and sun-filters cream; 5 with ingenol mebutate gel and 5 with photodynamic therapy. An area ≥ 25 cm² was treated. Lesions ranged from 5 to 15 mm. Patients were evaluated by clinical examination, dermoscopy and RCM. We evaluate by immunohistochemistry the expression of matrix metalloproteinases 1 and 2 (MMPs) enzymes and Ki67 by performing biopsies of lesions before and after treatment.

RESULTS: After each treatment, we observed significant differences in RCM features in both target lesions and field of cancerization with normalization of dermoscopy and RCM patterns regardless of the treatment. Both MMP-1 and MMP-2 showed a significant reduction of their expression after all three treatments and, limited to MMP-1, more evident for piroxicam treatment. A significant reduction of ki67 expression was documented after each treatment.

DISCUSSION: Our study documented the efficacy of the three treatments on AKs lesions





and their field of cancerization. The results recorded by RCM evaluation were confirmed by dermoscopy and by biopsy together with assessment of MMPs enzymes and Ki67. This study confirms the usefulness of RCM in monitoring the effects of treatments on AKs and field of cancerization.

