Sequential treatment of actinic keratosis with cryotherapy and ingenol mebutate: reflectance confocal microscopy monitoring of efficacy and local skin reaction.

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ABSTRACT
BACKGROUND: Sequential treatment of actinic keratosis (AK) and cancerization field with cryotherapy and ingenol mebutate (IM) is widely used in clinical practice, however, the order of application of sequential treatment has not been examined yet. OBJECTIVE: To compare different sequential treatments of IM and cryotherapy in AK and to monitor cure rates and local skin reactions (LSR) through reflectance confocal microscopy (RCM).

METHODS: Patients with AK were treated with IM and cryotherapy. Group A received treatment with IM before cryotherapy, and group B patients were firstly treated with cryotherapy and secondly IM. RCM evaluation of epidermal dysplasia and LSR was performed prior to the first treatment (Week 0), before the second treatment (Week 2), and one month and two months after initial assessment.

RESULTS: The study included 26 patients - 14 patients in group A and 12 patients in group B. In both groups, significant improvement in epidermal dysplasia RCM parameters between the first and last visit was observed. Regarding LSR parameters, group A presented fewer LSR parameters than group B on the second visit. This difference was present even if comparison was made between the third visit of group A and the second visit of group B.

CONCLUSIONS: Both sequences of treatment are effective, but IM treatment before cryotherapy is recommended because of the lower LSR. This probably decreases patient discomfort and improves compliance. © 2018 The International Society of Dermatology. PMID: 30066970 DOI: 10.1111/ijd.14164