Inflammation of actinic keratoses with capecitabine therapy for colon cancer

Capecitabine is an orally administered systemic prodrug of 5-fluorouracil (5-FU), currently used as an anti-neoplastic agent. Tumor-specific conversion to the active drug improves tolerability and intra-tumor drug concentrations. It is currently approved for colorectal and breast cancer, and is commonly used either alone or in combination with other chemotherapy regimens [1].

Actinic keratoses are focal areas of abnormal keratinocyte proliferation and differentiation, presenting as keratotic lesions on chronically light-exposed skin. They are usually considered a premalignant lesion, with a low risk of progression to invasive squamous cell carcinoma. There is vast experience with topical use of 5-FU on actinic keratoses, with randomised controlled trials confirming efficacy [2, 3]. We describe a 67-year-old Caucasian male, with a 3-year history of rectal adenocarcinoma, with local recurrences treated with surgery and radiotherapy. Chemotherapy was started with capecitabine, 2,150 mg (1,250 mg/m²) twice daily for 2 weeks, followed by a 1-week rest period. Four days after starting capecitabine, the patient developed areas of inflammation on the scalp and face, and was sent for dermatological assessment. On examination, all inflammatory aspects were restricted to areas of previous actinic keratoses, with erythema and localised pain (figure 1). The chemotherapy schedule was maintained, and after 8 weeks no remaining inflammatory activity was present, with complete clearing of the actinic keratoses. After 6 weeks of therapy he also developed erythema and skin darkening on the palms and soles, with mild discomfort. This frequent side-effect of anti-neoplastic chemotherapies is called hand-foot syndrome or palmoplantar erythrodysesthesia, and 5-FU and derivatives are the most often implicated agents [4].

Inflammation of actinic keratoses with the systemic use of capecitabine has very rarely been reported in the literature [5, 6]. It could be considered an almost expected side-effect, due to the efficacy of topically applied 5-FU on actinic keratoses, and probably has been under-reported. It is important to recognise this reaction and advise patients with actinic keratoses of the potential inflammatory response, assuring them that it will be limited and may even be beneficial.

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