Nodular basal cell carcinoma of the face successfully treated with ingenol mebutate 0.015% gel

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ABSTRACT

Surgical excision is the first-choice treatment for basal cell carcinoma (BCC). Other treatments with topical agents such as 5-fluorouracil or imiquimod have also been suggested for use in superficial BCC (sBCC). Ingenol mebutate (IM) is a novel agent employed in the treatment of superficial actinic keratoses. The drug has been also successfully used in the treatment of sBCC. A case of large nodular BCC (nBCC) of the face in a 100-year-old inoperable woman is described. IM 0.015% gel was applied once daily for three consecutive days. This dose regimen was repeated for seven rounds within 11 months, with complete cure of the tumor. Mild local skin reactions, which were tolerated well, were observed. Selected cases of nBCC could be treated with IM gel, but the optimal concentration of the drug and the standard dose regimen of treatment are yet to be determined.

Introduction

Basal cell carcinoma (BCC) is the most frequent non-melanoma skin cancer. It has low mortality but a high morbidity. Surgical excision is the first-choice treatment for BCC, and Mohs micrographic surgery is the best treatment for the high-risk forms. Other physical treatments recommended are curettage and cautery, cryosurgery, carbon dioxide laser, photodynamic therapy (PDT) and radiotherapy. Topical treatment with 5-fluorouracil or imiquimod is also suggested for superficial BCC (sBCC) [1].

Case Presentation

A 100-year-old woman was visited in her home. She suffered from senile dementia with low mobility and lived permanently in bed. She had a large flesh-colored nodule on the left cheek that was eroded and covered by crusts (Figure 1). An incisional biopsy was performed, and histology confirmed the diagnosis of nodular BCC (nBCC). As the patient’s situation did not lend itself toward surgical excision of the tumor or other physical therapies (curettage and cautery, cryosurgery, PDT, radiotherapy), treatment with topical ingenol mebutate
IM 0.015% gel was chosen. The gel was applied in the morning and washed after eight hours for three consecutive days. This dosing regimen was repeated once monthly for three consecutive months, and the tumor size progressively reduced (Figure 2). After six months the same dosing regimen was repeated four times (once monthly) until complete disappearance of the lesion was achieved (Figure 3). Six months later no relapse was observed. A local inflammatory response was observed after every application, consisting of erythema, scaling, and crusting. These skin reactions were tolerated well.

Discussion

IM is a novel agent extracted from the sap of the plant Euphorbia peplus, which has a dual mechanism of action consisting of rapid induction of primary necrosis followed by neutrophil-mediated, antibody-dependent cellular cytotoxicity of residual disease cells; the latter is partly mediated by protein kinase C activation [2]. This drug is registered in Italy for topical treatment of superficial actinic keratoses.

IM gel was first employed in the therapy of sBCC in a randomized phase II A trial, using concentrations of drug of 0.0025%, 0.01%, and 0.05%. Two arms of treatment were started. The drug was applied on days 1 and 2 in the first arm and on days 1 and 8 in the second arm. The histologic
In conclusion, selected cases of nBCC could be treated with IM gel, but the optimal concentration of the drug and the standard dose regimen of treatment are yet to be determined. More studies on larger series of cases are needed to confirm our hypotheses.

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