Ingenol Mebutate Gel 0.015% for the topical treatment of Nodular Basal Cell Carcinoma

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The incidence of non-melanoma skin cancer (NMSC) continues to rise and is currently the most common malignancy seen in medicine. There is currently a need for treatment of existing cancer by non-surgical and tissue-sparing modalities and medications. This study explores the use of IM for the treatment of nBCC in a non-surgical candidate.

Ingenol mebutate (IM) has FDA approval for the treatment of actinic keratosis. IM is extracted from the sap of the plant Euphorbia peplus via an extensive extraction and crystallization process. IM appears to induce local lesional cell death and promote an inflammatory response characterized by an infiltration of neutrophils and other immunocompetent cells.

A 66-year-old Caucasian male with severe cardiac disease requiring coronary stent placement in 2009, HTN, hyperlipidemia and a recent diagnosis of paroxysmal atrial fibrillation presented to the clinic with his third case of nBCC in 10 years. This patient has been previously treated with surgical excision of a 1.5cm nBCC on the right outer canthus in 2009 and a 2.2 cm nBCC of the left eyebrow in 2001. At this time, the patient was taking warfarin, aspirin and required transfusion of 2 units of PRBCs for hemorrhage following routine colonoscopy and polypectomy.

The patient was treated with three applications of IM 0.015% over three consecutive days for nBCC involving the right temple. IM was applied to the nBCC covering a 2x2 inch area.

Physical examination revealed a 2.5 cm raised, erythematous, pearly nodule with rolled, ragged edges, an ulcerated center and telangiectasias located along the hairline of the right temple. Numerous actinic keratoses were noted over the vertex of the scalp, face and arms but were not treated with IM at this time. The patient was treated with three applications of IM 0.015% over three consecutive days for nBCC involving the right temple.

At day 37, the site previously occupied by this 2.5cm nBCC could not be distinguished from the surrounding skin. Local skin reactions following initial application included an intense burning sensation, marked erythema progressing to a flaking scale with desquamation. Overall, the patient’s satisfaction was high, citing convenience, simplicity of treatment, avoidance of surgery and excellent cosmetic results as his reasons.

In conclusion, Ingenol Mebutate 0.015% gel may be considered for the treatment of nBCC in patients where surgery is a relative or absolute contraindication. We found this therapy to be safe, effective, well tolerated and cosmetically appealing. This case report raises the need for a large, randomized, controlled study to investigate the effectiveness of IM for the treatment of nodular BCC with histological confirmation.