



# Imiquimod Cream for the Treatment of multifocal pigmented basal cell carcinomas of the Scalp



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## Introduction

Basal cell carcinoma (BCC) is the most common non-melanocytic skin cancer. So far, the surgical excision with narrow safety margins has been considered to be the gold standard treatment for this type of skin tumor. However, this option is not always possible, either due to a critical localization of the BCC in areas difficult to operate, or due to the presence of multifocal BCC-lesions, patient reluctance against invasive treatments, accompanying patient multimorbidity etc.

## Materials and Methods

We report the case of a 70-year old male patient with multifocal pigmented BCCs of the scalp, who showed complete long-term remission under treatment with topical imiquimod 5% cream.

## Case Presentation

A 70-year old male patient presented with three slowly growing, mild erosive pigmented plaques, one located in the medial frontal region and two located in frontotemporal area of the scalp (Figure 1A and 1B). The biopsies showed evidence of three pigmented superficial BCCs. Due to the difficulty of removing surgically all lesions, we opted for the excision of the BCC only in the frontal area and for the treatment of the two BCCs in the frontotemporal area using topical imiquimod 5% cream.

Imiquimod was applied once daily, on 5 consecutive days per week, over a period of 5 weeks. Ten days after the first two regimens, the larger BCC-lesion on the right frontotemporal area had shown a significant improvement (Figure 2A), while the smaller BCC-lesion on the left frontotemporal area had shown a complete remission, demonstrating only a temporary local irritation (Figure 2B).

Another 5-week regimen followed for the larger BCC-lesion, until a complete clearance could be achieved (Figure 3A). During the 9-months-follow up visit, no sign of recurrence of the two BCCs could be seen (Figure 3B and Figure 3C). In total, three regimens were necessary for the larger BCC-lesion in the right frontotemporal area, and 2 for the smaller BCC-lesion in the left frontotemporal area, until a complete clearance could be achieved. Each regimen was followed by a pause of 2 months.

Approximately 2 weeks after initiation of the local treatment, a local irritation could be documented, which was generally well tolerated by the patient. Furthermore, the lack of scarring provided a satisfactory cosmetic outcome.

## Conclusions

Imiquimod is an agent with immune-modulating properties and proven antitumor and antiviral activity. Its action is mediated through the activation of Toll-like receptor 7, which leads to the production of inflammatory cytokines that stimulate various cells of the innate and adaptive immune system into attacking tumor cells.

The recommended dosage schema of the topical imiquimod therapy is not standardized and it varies among the different studies.

Despite the superiority of the microscopic Moh's surgery in the treatment of BCCs compared to imiquimod, the latter can be considered as an efficient alternative option in cases of inoperability. Furthermore, it provides a good long-term cosmetic result, without the risk of functional impairment following postoperative scarring.

## Images

Figure 1: A Multifocal BCCs in the right frontotemporal area before treatment. B. Multifocal BCCs in the left frontotemporal area before treatment



Figure 2: A. Multifocal BCC (right frontotemporal area) 10 days after 2 regimens of topical treatment with 5% imiquimod cream B. Multifocal BCC (left frontotemporal area) 10 days after 2 regimens of topical treatment with 5% imiquimod cream



Figure 3: A. Multifocal BCC (right frontotemporal area) 10 days after 3 regimens of topical treatment with 5% imiquimod cream B. Post-treatment photograph during the 9-month-follow up visit of the BCC in the right frontotemporal area: complete clearance, no sign of recurrence C. Post-treatment photograph during the 9-month-follow up visit of the BCC in the left frontotemporal area: complete clearance, no sign of recurrence

