

Topical photodynamic therapy for the treatment of large and giant basal cell carcinomas

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Introduction

Basal cell carcinomas (BCC) are the most common skin cancers. In a small number of patients (< 1%) these tumors are large or giant: exceeds 5 cm in diameter.

The aim

To present treatment results of patients with a large and giant BCC tumours using topical photodynamic therapy (PDT).

Methods

From January 2006 to January 2011 we performed a retrospective non-comparative follow-up study on 5 women with large and giant BCC (T2-T3), the average age of patients was 72 years.

All lesions were located in "difficult-to-treat" areas – central part of the face and ears. All diagnoses were confirmed histologically. Photographic documentation and dermoscopy was performed for every lesion before and after treatment and during follow-up.

In former times large and giant BCC were treated with radiotherapy, in our study we tested the tumor response to 5-aminolevulinic acid (5-ALA). Every lesion, before treatment was prepared by alpha-hydroxy (AHA) 15% lotion (Neostrata) application for 7 consecutive days and debulking procedure. 5-ALA 20% cream was applied for 3-3,5 hours under occlusive dressing. After removal of the dressing and remnants of 5-ALA cream, large and giant BCC tumors were exposed to a red 634 nm light with a fluence rate of 160 mW/cm² and a light dose of 150 J/cm² was achieved in 16 min.. We used one treatment procedure. During the procedure all patients were anesthetized with Lidocaine 1%.

Results

The patients were evaluated for early therapeutic result at 1 and 6 month periods - 100% cure rate was achieved. Follow-up at 12 months after the end of the treatment revealed 80% cure rate.

Conclusion

5-ALA-PDT is an optional treatment for a large and giant BCC tumours.