



## Topical Management of Basal Cell Carcinoma- A Case Report

Authors

**Dr Padmalakshmi Bharathi Mohan, Dr. Kannan P**

Department of General Surgery

Government Mohan Kumaramangalam Medical college and Hospital, Salem

### Abstract

*Basal Cell carcinoma is the most common skin malignancy. It is a radiosensitive tumor. The main treatment modality includes radiotherapy and surgery. But topical antineoplastic agents have also found to be effective. In this article we report a case of basal cell carcinoma left temple, who was treated with topical 5-fluorouracil. Patient responded well to treatment and there was no residual malignant cells following treatment for 12 weeks. The relevant literature has been reviewed and the management has been discussed in brief.*

**Keywords:** Basal cell carcinoma, Topical 5-Fluorouracil.

### Introduction

Basal Cell carcinoma is the most common skin malignancy which arises from nonkeratinizing keratinocytes that are present in the basal layer of the epidermis. It is a non melanotic tumor. The most common site of occurrence is in the face above the line drawn between the mouth and ear lobule. Treatment commonly employed is Wide excision (with 1cm clearance) or Microscopically Oriented Histographic Surgery. Recently FDA has approved topical application of 5 FU and Imiquimod for the treatment of superficial BCC, with a successful cure rate. Here we report a case of Basal cell carcinoma treated with topical 5 Fluorouracil.

### Case Report

68 years old elderly female presented to our OPD with complaints of discolored lesion in her left temple for the past two years. The lesion was slow

growing, with recent onset of itching. There was no history of trauma. There was no discharge from the lesion. There was no history of prolonged sun exposure. She had no past medical or surgical comorbidities.



On examination, there was a 6cm x 5cm blackish discolored lesion on the left temple, with beaded edges and classical forest fire appearance depicting central inactivity and peripheral activity. The lesion was freely mobile from the underlying bone. There was no tenderness over the swelling.

A Wedge biopsy of the lesion showed a neoplasm arising from the basal layer of the epidermis comprising of nests of basaloid cells with peripheral palisading and pigmentation, features suggestive of Pigmented Basal cell carcinoma.

As the patient was not willing for an invasive excision procedure, she was educated about topical treatment of the same and the patient

agreed to undergo therapy with 5 Fluorouracil. The patient was advised to apply the cream twice daily continuously for 12 weeks. During the course of treatment patient developed minor complications like erythema, skin excoriation and hypopigmentation of the skin which was adequately managed.

### Follow Up



A repeat biopsy was done at the end of twelve weeks, which showed no evidence of residual malignant cells.

### Discussion

Basal cell Carcinoma is the most common skin malignancy accounting for about 75% of skin malignancies.<sup>(1)</sup> The main etiology of BCC is sun exposure, UV B rays contributing to a higher risk than UV A rays. The other causes of BCC are Arsenics, Coal Tar, Aromatic hydrocarbons, Skin tumor syndromes (Gorlin syndrome). There are no precursor lesions of Basal cell carcinoma. Clinically BCC can be either Localized which includes Nodular, Nodulocystic, Cystic, Pigmented, Nevoid types, or Generalized. It can also be superficial or infiltrative.

Basal cell carcinoma is most common above the line drawn between angle of mouth and ear lobule. It is a locally invasive tumor, hence the term "Rodent Ulcer". It invades the underlying periosteum, bone. It does not metastasize through lymphatics because of large sized tumor cells. Tissue biopsy is the investigation of choice which shows classical peripheral palisading of cells.

Management of Basal cell carcinomas includes Excisional surgery, Laser or Cryotherapy, Microscopic oriented Histographic Surgery (MOHS).

Topical therapy of Basal Cell carcinoma is gaining increasing popularity due to its non-invasiveness and cost effectiveness. The two FDA approved drugs for treatment are Imiquimod and 5 Fluorouracil.

5-Fluorouracil (5-FU) being structurally similar to thymidine, interferes with DNA synthesis, thereby resulting in the death of rapidly proliferating malignant cells. FDA approved treatment for BCC was a twice daily application for 3-6 weeks. Longer duration treatments have been reported.

As the compound cannot reach cells deeper in the skin, the side effects are most commonly superficial. The most common side effects are erythema, dermatitis, pruritus, scarring, scabbing, ulceration, erosion, hyperpigmentation. Systemic side effects of chemotherapy can be avoided.

In a study conducted by Elliot et al, Thirty-one tumors were treated twice daily for an average of 11 weeks. A 90% clearance rate was observed on the basis of histologic evaluation. The common reported adverse effects of fluorouracil were erythema, pain, irritant dermatitis, and pruritus. <sup>(2)</sup>

In a study comparing Photodynamic therapy, Imiquimod, and 5 Fluorouracil in the management of Basal cell carcinoma, complete clinical remission at 1 year was found to be 83.4% for imiquimod, 80.1% for 5 Fluorouracil, compared to 72.8% for Photodynamic therapy. However topical therapy was reported to have local side effects as described above. <sup>(3)</sup>

### Conclusion

As being the most common skin carcinoma, new innovations in the management of Basal cell Carcinoma is required. Though surgery provides a better clearance, it is invasive and requires the patient to go under anesthesia. Hence patients may be hesitant to undergo surgery for a small lesion. Hence topical chemotherapy of Basal cell carcinoma should be thought of as it is noninvasive, cost effective and has a good remission rate.

### References

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