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FACIAL BASAL CELL CARCINOMA- CLINICAL VARIANTS, MANAGEMENT AND CLINICAL OUTCOME EXPERIENCE AT OUR CENTRE.

Oncology

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ABSTRACT

Background: Basal cell carcinoma (BCC) is the most common type of skin cancer and it constitutes more than three quarters of skin cancers of the face. Any lesion in the face above the line joining the tragus and the angle of mouth are considered as high risk lesions for recurrence. The gold standard surgical treatment is Mohs micrographic surgery (MMS) or surgical excision with intraoperative histological and margin assessment. Radiation therapy (RT) has always played an essential role in the management of BCC. **Aim:**To retrospectively analyse the presentation, risk factors, most common histopathology variant, margin status, flap reconstruction, need for adjuvant RT and recurrence of BCC in the face in a tertiary centre. Methods: Retrospective analysis of 16 cases of BCC over the face treated at out centre was done from 2018 to 2020.All were BCC above the line joining tragus to angle of mandible. **Results:** All cases presented between the age 34 to 67, mean age of 54. Of the total 16 cases, 12 were males and 4 females. 12 cases were primary and 4 were recurrent operated outside. All lesions excised with 2-4mm margin and reconstructed with local faciocutaneous flaps in first setting. All flaps healed well with no complictaions except for 2 which had minor wound breakdown. Post op Radiation given in 5 cases (4 recurrent and 1 primary). All patient had acceptable cosmesis after the completion of treatment. All patients were followed up for 2 years. **Conclusion:** In our experience high risk BCC in the face can be excised with negative margins using intraoperative frozen section and flap reconstruction can be done in first setting only. Those that are recurrent and with high risk features , adjuvant therapy has to be given.

KEYWORDS

Basal cell carcinoma, pigmented, nodulation, radiation, flap.

INTRODUCTION

Basal cell carcinoma (BCC) is the most common type of skin cancer and it constitutes more than three quarters of skin cancers of the face.[1] Clinically, BCC in the head and neck usually presents as a slow growing well defined papule or nodule with telangiectasias located above the line connecting the angle of the mouth and ear lobe. It is a locally destructive lesion and can cause serious disfigurement.[2] The gold standard surgical treatment is Mohs micrographic surgery (MMS) or surgical excision with intraoperative histological and margin assessment.[3] Recurrences between 5% and 14% are reported when tumours are completely excised and recurrence rate of 10 to 67% are reported in margin positive tumours. [4]. Radiation therapy (RT) has always played an essential role in the management of BCC [5,6]. It can be used at any stage of the disease, with curative or palliative intent, as an exclusive, adjuvant, or concomitantly with systemic treatment [7].

AIM

To retrospectively analyse the presentation, risk factors, most common histopathology variant, margin status, flap reconstruction, need for adjuvant RT and recurrence of BCC in the face in a tertiary centre.

MATERIAL & METHODS

Retrospective analysis of 16 cases of BCC over the face treated at out centre was done from 2018 to 2020.All were BCC above the line joining tragus to angle of mandible.The details of the patients,age of presentation,occupation,site of the lesion,previous surgical excision details,biopsy reports,local imaging,intraoperative frozen section details,flap reconstructions,histopathology reports ,details on adjuvant radiotherapy were collected.9 out of 16 patients were on regular followup. Rest were called over phone and asked about disease recurrence.

Inclusion Criteria

- Basal Cell Carcinoma Histology
- Lesion located above the line joining tragus to angle of mouth
- Primary or recurrent presentation

Exclusion Criteria

- Bcc lesion other then Face
- Non BCC histology

Follow up – TWO years.

Statistical Analysis

Data were entered in Microsoft Excel and the categorical data were analyzed by a chi-square test using SPSS (version 16). A p-value of less than 0.05 was accepted to be statistically significant.

RESULTS

All cases presented between the age 34 to 67, mean age of 54. The age of patients did not affect the incidence of BCC.

Of the total 16 cases, 12 were males and 4 females. (Table 1)

Primary, upfront cases were 12, while 4 cases were recurrent operated outside and later presented to us with recurrence.(Table 2).

Four lesions over the malar area were recurrent lesions with margin

positivity and had suspicious maxillary bone erosion hence part of the anterior wall of maxilla was excised for margin.

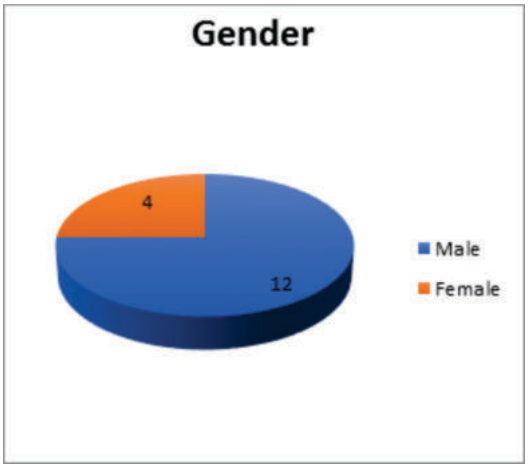

Table 1- Gender Distribution

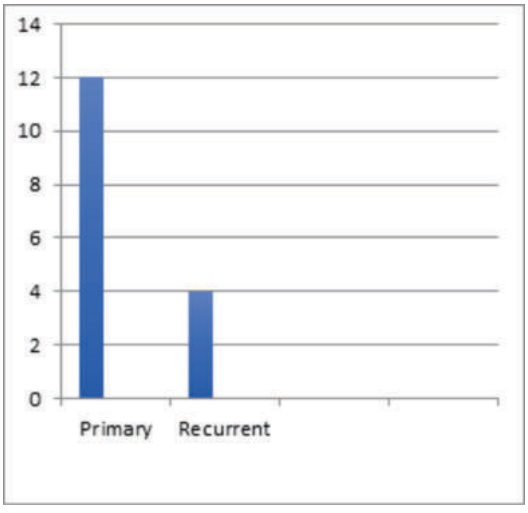

Table 2- Case Presentation

All lesions were excised with 4mm margin, those near the eyelid excised with possible margin of 2 to 3 mm . Intraoperative frozen section was done in case of doubtful margins and margins and base were revised in 7 cases.All cases were reconstructed with local fasciocutaneous flaps in first setting

Nodular and pigmented were the most common histopathology types. Nodular variant were seen in 9 patients wereas 7 patients had pigmented variety. (Table 3)

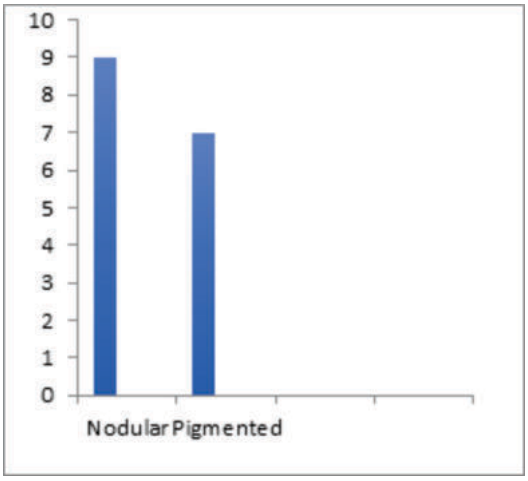

Table 3: Types of BCC

Margins and base were negative in all cases. The flaps healed well in all cases except in 2 cases of Mustarde cheek flap were minor wound breakdown was there in the retromandibular area.Donor sites healed well in all cases(Chart 1)

Post operative adjuvant radiotherapy was given in 5 cases.Radiation was given after 4 weeks of surgery,60 Gy in 30 fractions over 6 weeks with 3DCRT(conformal radiotherapy).

All 5 patients tolerated adjuvant radiotherapy without any complications.

Flap revision when required was done after 3 weeks and in cases were adjuvant radiotherapy was given,after 4 weeks of adjuvant radiotherapy.All patient had acceptable cosmesis after the completion of treatment.

All patients were followed up for 2 years.

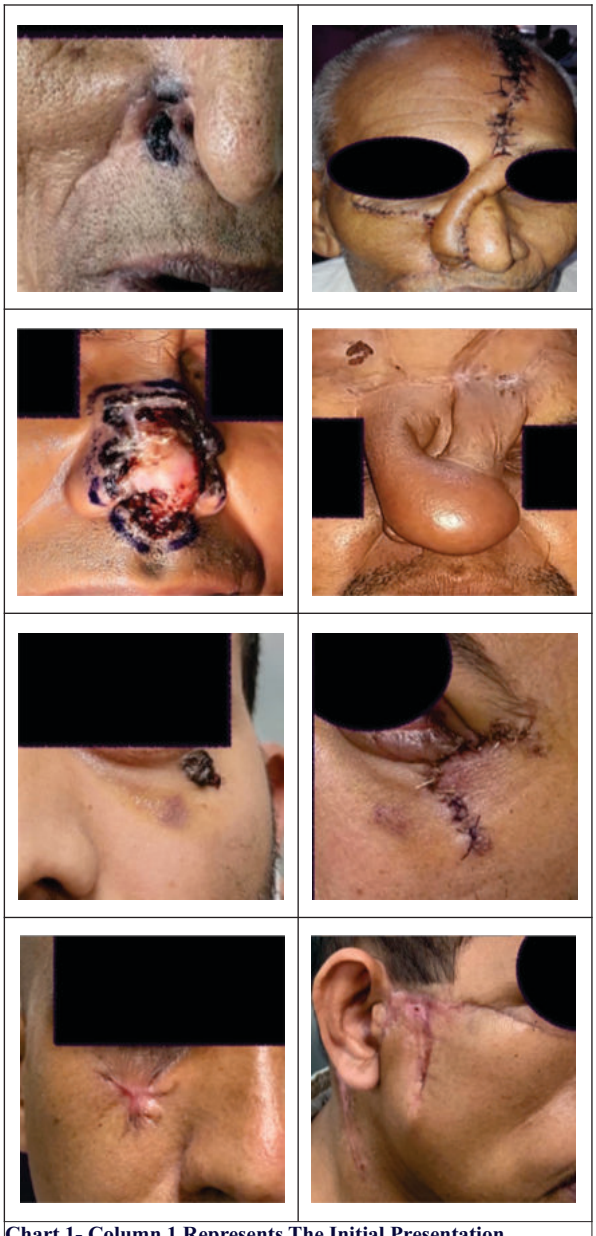

Chart 1- Column 1 Represents The Initial Presentation. Column 2 After Excision And Reconstruction

DISCUSSION

The worldwide incidence of BCC is increasing because of increased exposure to UV light and ozone depletion in various parts of the world due to environmental and industrial pollution [8].Risk factors for BCC include Fair skin type, sun exposure, ionising radiation, advanced age, immunosuppression and a personal history of non-melanoma skin

cancer [9] .BCCs are composed of several different histopathologic subtypes . These include nodular, superficial spreading, morpheaform, and pigmented. Nodular type is the most common subtype of BCC and consists of a nodule with central elevation and overlying ulceration. Superficial spreading appears as a scaly irregular plaque with micro erosions and is commonly seen in young adults. The morpheaform type is also known as sclerosing or infiltrating basal cell skin cancer as it has wide subclinical extension and may infiltrate cutaneous nerves and is considered as aggressive tumors[10]

In our study, BCC was slightly more common in male patients (M : F = 3 : 1). This could be because of the fact that most of our male patients were farmers or labourers by occupation and were more exposed to sun light because of their outdoor occupations. These results are similar to what is reported by Aandani and Ganatra [11].Most of our patients were in 5th decade similar to the above said study.90% of our patients were from Northeast India as reported by Labani S and Asthana [12].The most common anatomical site for occurrence of BCC in our study was nose followed by cheek similar as reported by Chow et al. [13]

Any lesion in the face above the line joining the tragus and the angle of mouth are considered as high risk lesions for recurrence.In this study,all lesions were of high risk.The size of the lesions ranged from 1x0.7 cm to 3x2 cms. As said earlier,MMS is the gold standard treatment for such high risk BCC. MMS allows surgeons to ensure definitive excision with minimal loss of normal surrounding tissue, thereby offering high cure rates with good cosmesis(14) It has been found in many studies that a 99% cure rate can be achieved by using a surgical margin of 1 or 2 mm of normal skin through Mohs micrographic surgery(15) But micrographic surgery is not readily available in many places and requires more training and experience and is also time consuming [16]. Hence, Mohs micrographic surgery is advocated for more complex lesions where the clinical margin is not apparent, and for recurrent lesions. Intraoperative frozen section (IFS) of margins can be used as an alternative to MMS.[17] provided it includes a complete assessment of all deep and peripheral margins.Intraoperative frozen section was done in our study for doubtful margins especially those near eyelids.In such cases 2 to 3 mm of margin was given and frozen section analysis of margins were done. Rest of the cases ,as the lesion were in high risk areas,4 to 6mm margins were given as given in NCCN[18].

The defect following excision ranged from 1.5x1.2 cm to 3.6x 2.6 cms. As lesions were in high risk of recurrence areas and intraoperative frozen section was done, the defects were reconstructed with local faciocutaneous flaps. Out of the 16 cases,4 were lesions recurrent lesions with margin positivity in the malar area,with maxillary bone erosion.Those lesions were excised with 6mm margin and reconstructed with mustarde cheek flap.3 lesions were near the lower eyelid, the margin near the lower eyelid was assessed by intraoperative frozen section and then reconstructed with local rotation flap. 6 lesions were on the nose which were excised and reconstructed with unilateral or bilateral median forehead flap.3 were in the parotid region, which were excised and defect closed with cervicofacial flap.The donor sites were closed primarily or with split thickness skin graft.The forehead flaps were divided after 3 weeks or after 4 weeks of radiotherapy.Most of our cases were reported as nodular(n=9) type same as the Aadnani and Ganatra study[8].Rest were pigmented type lesions.Post operative adjuvant radiotherapy was given in 5 cases ,4 recurrent cases and one case with extensive perineural invasion.(18)

All the patients were followed up for 2 years. Despite adequate excision of the tumor lesions, histological margins involved occur at a variable frequency, between 5.5 and 12.5% .(19)In our series 4 were such cases. The rate of recurrence reported for such cases are between 10% and 67%(4). Hence wider margin was taken with intraoperative frozen section assessment.The final histopathology in our center came as margin negative. Recurrences between 5% and 14% are reported when tumors are completely excised. (4).None of our patients had recurrences till date and is on follow up.

CONCLUSION

In our experience high risk BCC in the face can be excised with negative margins using intraoperative frozen section and flap reconstruction can be done in first setting only. Those that are recurrent and with high risk features, adjuvant radiotherapy has to be given.

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