ORIGINAL PROF-644

BASAL CELL CARCINOMA;
EXPERIENCE AT THE DEPARTMENT OF PLASTIC SURGERY ALLIED HOSPITAL FAISALABAD

DR. GHULAM QADIR FAYYAZ
MBBS, MS (Plastic Surg)
Assistant Professor of Plastic Surgery
Punjab Medical College
Faisalabad
DR. MOHAMMAD ASIM, MBBS, FCPS (Plastic Surg)

DR. ZAHID MAHMOOD NAGRA
MBBS, FCPS (Plastic Surg)

ABSTRACT

OBJECTIVE: To report the incidence, mode of presentation and clinical management of BCC with a local perspective. **DESIGN:** Analytical and observational study: **PLACE & DURATION OF STUDY:** The department of Plastic Surgery and Burns, Allied Hospital Faisalabad from Jun 1999 to June 2001. **SUBJECTS & METHODS:** A total of thirty patients were included in this study. Patients were grouped according to site, size and clinical type of lesion with a noting of time elapsed between the appearance of lesion and presenting to O P D. Modes of reconstruction employed were direct closure, skin graft and local /regional flaps. **RESULTS:** Maximum prevalence ranges between ages of 51-60 years with male predominance and outdoor workers / farmers by occupation. No patient presented before five years after appearance of lesion. Nodular pigmented variety with size range of 2 - 4 cm was most common, involving cheeks and eyelids. Complete excision and skin grafting has been in presentation has an overall negative effect on the outcome. **CONCLUSION:** Delay in presentation has an overall negative effect on the outcome. A simple excisional biopsy technique ensure margin clearance and gives surgeon more freedom for reconstruction.

KEY WORDS: Skin Cancers, Basal Cell, Reconstruction, Biopsy

INTRODUCTION

Basal cell carcinoma is the most common Skin Malignancy, accounting for about 80% of all skin cancers[1].

It is a fibroepithelial tumor having interdependent stromal and epithelial components. Neoplastic epithelial cells originate from pluripotent cells in the basal layer of the epidermis and less frequently from other cutaneous appendages like outer hair follicle sheath, sebaceous and sweat glands[1].

Ultraviolet radiation in the sunlight has been reported to be the single most important causative factor[1,3,4,7].

Fair skinned, easily sun burnt individuals living at high altitudes and having outdoor occupations are at the greatest risk. Genetic predisposition also plays an important role. A defective, self destructing protein P-53 is implicated in the overproduction of UV-mutated tumor cells[2].

Basal cell carcinoma has been divided into five subtypes, nodular ulcerative, pigmented nodular, superficial, sclerosing/morpheaform and multiple nevus

syndrome. These types have strong implications on clinical management[5].

Although rarely metastasizing to lymph nodes or distant organs[7], the real menace is local tissue destruction leading to disfigurement or functional loss. In our setup, we come across tumors, which are large, long standing and involve certain vital areas. These are clinically more aggressive and hence difficult to manage[6].

AIMS & OBJECTIVES

The single objective of this study is to report the incidence, mode of presentation and clinical management of BCC with a local perspective.

MATERIAL & METHODS

This study was carried out at the Department of Plastic Surgery and Burns, Allied Hospital Faisalabad. All patients , male or female , coming to outpatient from June 1999 to June 2001, with a clinical diagnosis of BCC were included. After history and examination, every patient was subjected to lab investigations (blood CE, Urine CE). Chest X-ray, ECG and X-ray of involved region were carried out, where indicated. Every lesion was biopsiesd (incisional / excisional). Excision was performed under local or General Anaesthesia.

Patients were grouped according to the following parameters ;

- Age / sex
- Occupation
- Site
- Size
- Clinical type
- Surgery under L/A or G/A.
- Mode of reconstruction

Adequate normal skin margin were excised and biopsy specimen was topographically labeled. This ensured exact reporting by the Histopathologist regarding involvement / clearance of the margins. Any involved margin was re-excised.

After creation of a tumor free defect, the following modes of reconstruction were employed ;

1. Direct closure
2. Skin graft
3. Local / Regional flaps

Reconstructive procedure was contemplated under L/A or G/A depending upon the site and size of the tumor. A photographic record consisting of pre-operative, per-operative and post operative photos was maintained in every case. Every patient was followed up at one week, one month and then six month intervals, which still continues in some cases.

RESULTS

A total of thirty patients were managed during the two-year period. The detailed break up follows in tabulated form. Age and sex distribution is given in table-I.

Table-I. Age and Sex distribution

Age/Sex	Male	Female	Total
40-50	7	-	7
51-60	13	-	13
61-70	2	5	7
>70	3	-	3
Total	25	5	30

Majority of the patients were out door workers as shown in table II.

Patients included in this study had the locally prevalent skin types as shown in table III.

Majority of the patients had lesions for the last 5-10 years. As is clear from table IV, no patient presented before 5 years.

Figure-1. Basal Cell Carcinoma at nose and check junction

Figure-2. The B.C.C excised from malag region

All the lesions encountered in this study occurred on the exposed head and neck areas as evident from table V. Most of the patients had the nodular pigmented type of BCC (table VI).

Table-II. Occupation

Occupation	Male	Female	Total
Farmer	12	1	13
Construction worker	8	-	8
Idle	5	-	5
House hold	-	4	4
Total	25	5	30

Figure-3. Basal Cell carcinoma at tip of nose.

Table-III. Skin types

Skin type	Male	Female	total
Fair skin	2	2	4
Dark skin	23	3	26
Total	25	5	30

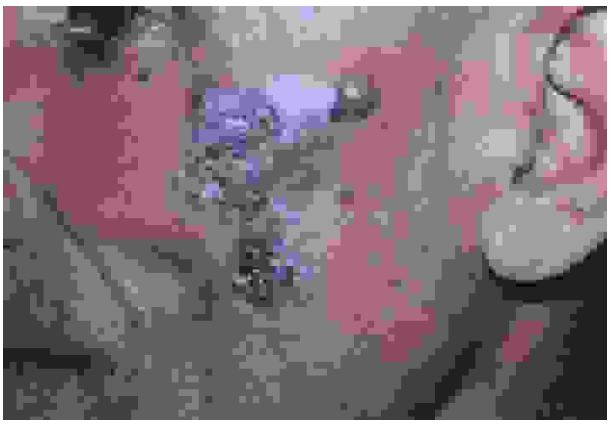

Figure-4. Multiple Basal Cell Carcinoma involving left cheek and other parts of face.

Most of the lesions were from 2-4 cm in diameter. Only one lesion was found to be less than 1 cm (table VII).

Most of the lesions had to be operated under General Anaesthesia as the lesions were either large or on critical areas (table VIII). Table IX shows the modes used for reconstruction.

Table-IV. Delay in presentation

Time in years	Male	Female	Total
<5	-	-	-
5-10	15	2	17
11-15	8	2	10
16-20	1	-	1
>20	1	1	2
Total	25	5	30

Table-V. Site

Site	Male	Female	Total
Cheek	12	-	12
Nose	2	1	3
Eyelids /Orbit	8	2	10
Hands	-	-	-
Pinna	-	-	-
Forehead	-	-	-
Involving > 1 area	3	2	5
Total	25	5	30

Table-VI. Clinical types

Types	Male	Female	Total
Nodular	5	-	5
Superficial	2	-	2
Nodular pigmented	13	5	18
Morphaeform	5	-	5
Gorlin's SYND	-	-	-
Total	25	5	30

More than two third patients did not come for follow up at one year (table X).

Table-VII. Lesion size

Size	Male	Female	Total
<1cm	1	-	1
1-2 cm	7	2	9
2-4 cm	13	1	14
>4 cm	4	2	6
Total	25	5	30

Table-VIII. Anaesthesia used

Anaesthesia	Male	Female	Total
Local Anaesthesia	8	2	10
General Anaesthesia	17	3	20
Total	25	5	30

Table-IX. Mode of reconstruction

Method	Male	Female	Total
Direct closure	6	1	7
Skin graft	10	2	12
Forehead flap	4	1	5
Cheek flap	5	1	6
Total	25	5	30

Table-X. Follow up

Time	Male	Female	Total
One week	25	5	30
One month	23	5	28
Six month	18	4	22
One year	10	2	12

DISCUSSION

BCC is the most common skin malignancy reporting to our OPD. The age ranges between 40-95 years with a mean of 49.5 years and a sex incidence of 5:1 with a male dominance[4].

It is a widely established fact that air skinned people more exposed to sunlight are at a greater risk of developing BCC[1,2,4,5,7]. This was further proved in our study where most of the patients (70%) were out door workers. But in our setup we rarely come across fair and thin -skinned out door workers, so only four of our patients were found to have fair colored skin (table III).

Most of the patients presented 5-10 years after first noticing the lesion. The maximum time lapse was 25 years. No patient reported earlier than 5 years. This delay in presentation led to the development of large disfiguring lesions in many of our patients as shown in table. Most of the lesions were of 2-4 cm size. As reported in literature large lesions tend to be more difficult to excise and reconstruct and have a greater tendency to recur[7].

Although BCC is reported to occur anywhere on the body, especially on sun-exposed areas like face, in our study all the patients had lesions on the face. As shown in table V , five of our patients had the involvement of more than one area on the face. All of them had a lesion greater than 4 cm in the widest dimension and presented 11-15 years after the onset of disease. All of them had extensive tissue destruction requiring wider excision margins and complex methods of reconstruction. One of the patients had lost his left eye during the disease process.

Out of the many proposed biopsy techniques, we applied excisional biopsy in all but one case where an incisional biopsy was performed prior to the definitive excision. We excised the lesion with a normal looking margin of 5 mm or more. The specimen was mapped with sutures for convenience of reporting. In only three cases we had to re-excise the reportedly involved margins.

Majority of the smaller lesions (<2 cm), which were falling on cheek and nose, were excised and reconstructed under local anaesthesia. For all the rest we had to employ general anaesthesia due to the length and complexity of the procedure for reconstruction. For BCC the recommended follow up is at 6 month intervals for five years. We followed the same regime but we lost 60% of our patients at one year follow up. This problem has been faced in other local studies as well[8].

CONCLUSIONS

Based on our experience we conclude that;

1 Delay in presentation has an overall negative effect on the outcome, , as it leads to extensive tissue destruction, which in turn decreases the functional and cosmetic outcome of surgical management. The importance of a comprehensive public education program cannot be over emphasized.

2 A simple excisional biopsy technique, as employed in this study ensures margin clearance, which in turn gives the surgeon more freedom of reconstruction.

REFERENCES

1. Nahabedian MY. Skin malignancies, Basal cell carcinoma. e-Medical Journal., 2001; Vol 2No.12.
2. Leffel DJ, Brash DE. Sunlight and skin cancer. Scientific American: 1996; 275(1): 38-43.
3. Imayama S, Yashima Y, Higuchi R, Urabe H. New concept of Basal cell epitheliomas based n three dimensional growth pattern of the superficial multicentric type. 1987; Am J Pathol 128: 497.
4. Miller SJ, Malden MA. eds. Cutaneous oncology: Pathophysiology, Diagnosis and Management. lackwell. 1998; Science Inc.
5. Casson PR, Robbins P. Malignant tumors of the skin: McCarthy Ed Plastic surgery 1990; Vol 5.
6. Thissen MR et al. A systemic review of treatment modalities for primary basal cell carcinomas. Arch dermatol: 1999; 135: 1177-83.
7. Stal S, Spira M. Basal and squamous cell carcinoma. Grabb and Smith's Plastic surgery: 1997; 107-120.
8. Asim M, Management of Nasal Deformities associated with secondary Unilateral Cleft lip. Dissertation for FCPS; 1999; p-95.