

Cutaneous malignancies presenting in a private plastic surgery setup

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Abstract *Objectives* To know the frequency of cutaneous malignancies presenting in a private setup.

Patients and methods The study was conducted in a private plastic surgery setup from 2006 to 2010 including all the patients presenting in the clinic with cutaneous malignancies. The history included the age, onset, duration and evolution of the lesion. The history of sunlight exposure and occupation was also noted. The diagnosis was confirmed by excision/wedge biopsies in all the cases. All the patients were managed according to the standard oncological principles.

Results A total of 122 patients were included in the study. Majority of the patients were males (64.8%) with male to female ratio of 1.8:1. The mean age in male patients was 61.6 years as compared to 41.8 years in female patients. Majority of the male patients were farmers (48.1%). Only 6.3% of the males were office workers. Face (66.4%) was the most commonly affected area followed by leg. BCC was the commonest malignancy disclosed followed by SCC. The lesion underwent surgical procedures after excision including skin grafting, vacuum-assisted closure therapy and skin grafting, local and distant flap coverage depending on the situation.

Conclusion The prime aim remains the early detection and diagnosis and prompt treatment to lessen the morbidity and mortality associated with these malignancies.

Key words

Basal cell carcinoma, squamous cell carcinoma, cutaneous cancer.

Introduction

Cutaneous malignancies are estimated to occur in 20%-30% of all malignancies in Caucasians, 2%-4% of all neoplasm in Orientals, and 1%-2% of all cancers in Africans and Indians.¹ The aetiology is related to various factors including skin type, age, sun exposure etc. predisposing factors include individuals with a fair or light complexion, a history of severe sunburn, poor

tanning capability, inherited disorders, and immunocompromized status etc.^{2,3} Ultraviolet light (UV) exposure is thought to be a key factor in causing the skin cancers.³ Skin cancers comprise a group of malignancies which include primary and metastatic tumours invading the skin and its appendages. The skin cancers can be classified into melanomas and non-melanoma skin cancers.⁴ Basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) are the commonest non-melanoma skin cancers. Non-melanoma skin cancers differ from the melanomas by a high incidence combined with a very low lethality.⁵

Malignant melanoma is the most rapidly increasing cancer, almost 6% per year especially

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in the industrialized nations.^{6,7} Pakistan is a developing country which falls into the low-to-medium resource category by WHO classification. Cutaneous malignancies are not very uncommon in our population. The present study was undertaken to know the frequency of cutaneous malignancies presenting in a private setup.

Patients and methods

The study was conducted in a private plastic surgery setup from 2006 to 2010. All the patients presenting in the clinic with cutaneous malignancies were included in the study. The detailed history and physical examination were undertaken. The history included the age, onset, duration and evolution of the lesion. The history of sunlight exposure and occupation was also noted. The diagnosis was confirmed by excision/wedge biopsies in all the cases. All the patients were managed according to the standard oncological principles. The patients undergoing surgical excisions needed the reconstruction according to the individual patient, condition and cancer type. Information regarding the patients age, occupation, type of cancer, surgical procedures undertaken, complications, any radio/chemotherapy were also noted.

Results

A total of 122 patients were included in the study. Majority of the patients were males (70.5%) with male to female ratio of 1.8:1. The mean age in male patients was 61.6 years as compared to 41.8 years in female patients. Most of the female patients were housewives (**Table 1**). The majority of the male patients were farmers (51.9%). Only 6.3% of the males were office workers. Face (66.4%) was the most commonly affected area followed by leg (**Figure 1**). In majority of the patients (65.8%), the

Table 1 Occupations of the study population and duration of disease (n=122).

	Males N=79	Females N=43
<i>Occupation</i>		
Farmers	41 (51.9%)	3 (7.0%)
Laborers	17 (21.5%)	4 (9.3%)
Hawkers	9 (11.4%)	-
Security guards	7 (8.9%)	-
Office workers	5 (6.3%)	1 (2.3%)
Housewives	-	35 (81.4%)
<i>Duration</i>		
<3 months	1 (1.3%)	1 (2.3%)
3–6 months	5 (6.3%)	4 (9.3%)
6–12 months	21 (26.6%)	13 (30.2%)
>1 year	52 (65.8%)	25 (58.1%)

Table 2 Histopathological types of skin cancers (n=122).

Pathology	Male N=79	Female N=43
BCC	42 (53.1%)	27 (62.8%)
SCC	33 (41.8%)	15 (34.9%)
Melanoma	3 (3.8%)	1 (2.3%)
Dermatofibrosarcoma	1 (1.3%)	-

BCC-basal cell carcinoma, SCC-squamous cell carcinoma.

presenting lesion was found to be present over a period of one year and only 7.6% of the patients had a short history of less than 6 months (**Table 1**). There were 5 cases of xeroderma pigmentosum, three of them belonged to the same family.

BCC was the commonest malignancy disclosed followed by SCC (**Table 2**). The lesion underwent surgical procedures after excision including skin grafting, vacuum-assisted closure therapy and skin grafting, local and distant flap coverage depending on the situation.

A 10-year-old boy presented with multiple SCC secondary to xeroderma pigmentosum (**Figure 2**). The lesions were on the right side of the nose and cheek and left cheek. The lesions were excised and split thickness skin grafting was done. The wound healed satisfactorily with no recurrence after 1 year at the same place.

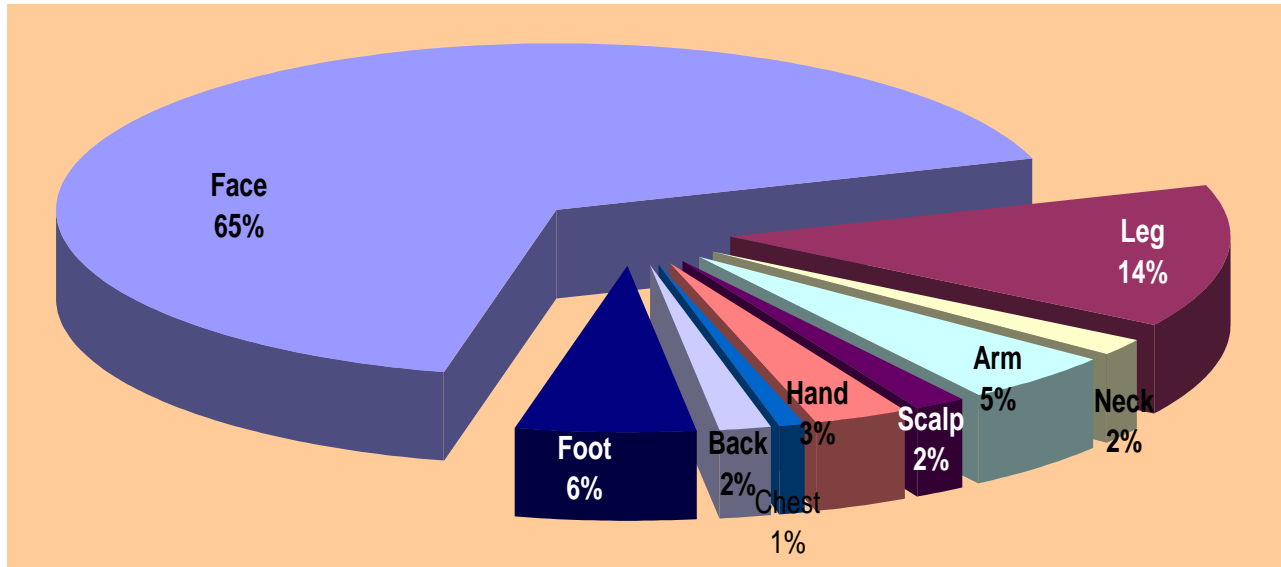


Figure 1 Sites of involvement in skin cancer (n=122).



Figure 2 Basal cell carcinoma in a patient of xeroderma pigmentosum.

A 65-year-old female presented with a large SCC on forehead. The tumour was excised and vacuum-assisted closure therapy was started. The wound was later skin grafted.

A 73-year-old female presented with SCC on the left cheek. The tumour was excised and the defect was closed with local rotational flap (**Figure 3**).



Large squamous cell carcinoma on forehead in an old man.



Figure 4 Squamous cell carcinoma on cheek.

Discussion

Skin cancer is less common in persons with coloured skin but is often associated with greater morbidity and mortality. Internationally, a rising incidence of cutaneous malignancies has been observed. For example, in Australia, the non-melanoma skin cancers have shown an alarming increase in the last two decades. BCC has increased by 19% and SCC by 93% between 1985 to 1995.⁸ Increase in the UV light exposure is considered to be the most important etiological factor.⁹

The present study is probably the first of its kind which was carried out in patients presenting with skin cancers in any private plastic surgery setup, though a few studies have been published in Pakistan.¹⁰⁻¹⁴ The male to female ratio was 1.8:1. The mean age of male patients was 61.6 years which is slightly higher than reported in other studies.^{10,14} Majority of the patients (more than 91%) presented with non-melanoma skin cancer, a similar observation noted in other local studies.^{10,13,14} The ratio between BCC:SCC was 1.5:1 which is in contrast to the Western data.^{2,15} A similar difference has also been reported in local studies.^{11,12}

The incidence of malignant melanoma was 4% in the present study which is similar to the incidence reported elsewhere.¹⁴ On the other hand, a higher incidence (6.4%) has been reported.¹² Five cases of xeroderma pigmentosum were seen in the present series, three of them belonged to the same family. Eighty one percent (81.4%) of the female patients were housewives whereas 89.9% of males were outdoor workers. Only 10.1% of males and 2.3% of females were office/indoor workers.

The most frequently involved area was face (66.4%) as noted in other studies.^{10,13} Surgical excisions were the mainstay of the treatment in the present series. More than 63% of the patients underwent skin grafting whereas 9% had vacuum assisted closure therapy followed by skin grafting was performed. About 28% (27.9%) of the patients underwent flap coverage. In most of the patients, Mohs micrographic surgery principles were followed. In BCC, a 5mm tumour-free margin was achieved whereas in less than 2cm lesion of SCC, 4mm tumour-free margin and in larger lesions, 1cm tumour-free margin was achieved.

The present study shows an overview of the patients presenting in a private plastic surgery setup. The actual incidence of the condition is definitely very high. The present study also necessitates the establishment of a central cancer registry. All the doctors should report to the registry in order to know the exact burden/incidence of the malignancies prevalent in the country.

Conclusion

Cutaneous malignancies cause significant morbidity. The prime aim remains the early detection and diagnosis and prompt treatment to lessen the morbidity and mortality associated with these malignancies.

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