

Pattern of Skin Cancer -A Analytical Study

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Abstracts: Incidence of skin cancers has been increasing since the last few decades worldwide. Non Melanoma Skin Cancer (NMSC) is the commonest variety of cutaneous malignancy. Basal cell carcinoma (BCC) and Squamous cell carcinoma (SCC), in combination, are referred to as Non melanoma skin cancers (NMSCs). This study was performed to understand the pattern of NMSCs in patients reported in the Department of Radiotherapy. The present study is a retrospective analysis of NMSC that presented to the Department of Radiotherapy Gandhi Medical College, from, Jan 2010 to December 2013. The patients were analyzed according to age, gender, site of involvement and histological types. During the 4 year study period, 17 cases were SCC and 9 cases were BCC. The most common age group for SCC was 40–50 years and BCC was 61–70 years. The most common site for SCC is lower limb followed by head neck, while for BCC it is head and neck. For SCC, the most common histological type was well-differentiated and for BCC, it was the solid type. The importance of understanding the risk factors as well as studying the frequency of histo pathological patterns can help in the overall prognostic outlook for patients and also in planning an effective management

Keywords: Squamous cell carcinoma, Basal cell carcinoma, Non melanoma skin cancer

I. Introduction

Non melanoma skin cancers (NMSCs) consist of, for the most part, squamous cell carcinoma (SCC) and basal cell carcinoma (BCC). These two cancers of skin are the most frequent malignant conditions worldwide. (1) NMSC is not usually life threatening unlike malignant melanoma. In India, the incidence of skin malignancies is low, constituting about 1–2 % of all the diagnosed cancers. BCC is the commonest skin cancer worldwide, but various studies from India have reported SCC as the most prevalent skin malignancy {3}.

II. Materials And Methods

This retrospective analysis was conducted in Department of Radiotherapy Gandhi Medical College Bhopal, a tertiary care teaching hospital.

A retrospective analysis of all NMSC cases received at the Department from Jan 2010 to Dec.2013 was performed. The results were analyzed after proper diagnosis based upon the clinical history, gross and histopathology findings.

III. Results

In the present analysis twenty six cases of NMSCs analyzed during the 4 year study period, 17 cases (65.38%) were SCC and 9 cases (34.61 %) were BCC. 17 cases (65.38 %) were males and 9 cases (34.61 %) females with a male to female ratio of 2:1.

Age ranged from 30 till 60 years out of which the most common age group for SCC was 30–40 years and BCC was 51-60 years (Table 1)

(Table 1)

Age (years)	Squamous cell carcinoma		Basal cell carcinoma		Total (%)
	Male	Female	Male	Female	
30–40	5	3	1	1	10(38.46)
41–50	4	2	2	0	8(30.76)
51–60	2	1	3	2	8(30.76)
Total	11	6	6	3	26(100)

Showing age/sex distribution of NMSC.

Primary sites wise distribution of is shown in (Table 2). Of the seventeen cases of SCC, nine cases (52.94%) involved the lower limb region, six cases (35.69%) involved head and neck region. Out of nine cases of BCC most of the cases, seven cases (77.77%) involved head and neck region

Site wise distribution (Table 2)

Site distribution	Number		Total (%)
	Squamous cell carcinoma	Basal cell carcinoma	
Head and neck	6	7	13(50%)
Upper limb	1	1	2(7.69%)
Lower limb	09	0	9(34.61%)
Abdomen and chest	1	1	2(7.69%)
Total	17(65.38%)	9(34.61%)	26 (100)

Histopathological distribution of cases-Most of the cases in SCC were Well Diff SCC (58.88%)while in BCC most of the cases were nodular type(66.66%)

Table-3 Histological distribution

Histopathological Distribution	Number(%)
Well Diff.SCC	10/17(58.88%)
Mod.Diff.SCC	4/17(23.53%)
Poorly Diff.SCC	3/17(17.64%)
Nodular BCC	6/9(66.66%)
Keratotic BCC	3/9(33.33%)

IV. Discussion

Both SCC and BCC arise from keratinocytes. Epidemiologic data and experimental evidence indicate that ultraviolet B (UVB) radiation (wavelength 290–320 nm) includes the most important wavelengths for the induction of skin cancer. {3} BCC is the commonest NMSC worldwide, but in India so many studies have reported SCC as the most prevalent {4}. In this present study also, SCC constituted 65.38 % of all the cases. In various studies conducted, it has been shown that 70 % of all skin cancers occur mainly in the sixth, seventh and later decades {5}. But in our study, 30.67 % of all reported cases of cancer relate to the fifty and later decades.

The frequency of skin cancers in men and women is in the ratio of 2:1 i.e more in male than female. Present study also shows a slight male preponderance comparable to other studies. In this study, the cases of NMSCs were seen involving the head and neck and lower limb are the common site, which demonstrates the major influence of sun exposure in the development of skin cancers. This corroborates the result of a previous study by Franceschi et al. {6}

The most common histopathological pattern for SCC was the well differentiated form constituting 58.88 % comparable to other studies. {7}. The histopathological pattern for BCC was the solid (nodular) pattern as the most common pattern also reported by other studies. {7}.

Risk factors for the development of SCC in darkly pigmented individuals are chronic scarring and areas of chronic inflammation. SCC is the most frequent type of malignant tumor arising in scarred skin {8}. Overall prognosis of scar SCC is less favorable compared to non-scar SCC {9}. One case of SCC in the present study was seen in an old burnt scar

V. Conclusions

NMSC occupies a smaller space in the perception of clinical practice in India. SCC is predominant in the Indian population rather than the BCC; this is an epidemiological characteristic that sets us apart from the global trend. . The importance of understanding the risk factors as well as studying the frequency of histopathological patterns can help in the overall prognostic outlook for patients and also in planning an effective management

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