

PATTERN OF SKIN MALIGNANCIES IN PATIENTS PRESENTING TO DERMATOLOGY DEPARTMENT HAYATABAD MEDICAL COMPLEX PESHAWAR

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Date Received:

July 18, 2013

Date Revised:

December 09, 2013

Date Accepted:

December 15, 2013

ABSTRACT

Objective: This study was conducted to determine the pattern of cutaneous malignancies among patients attending the skin out-patient department Hayatabad Medical Complex Peshawar.

Methodology: This was descriptive analysis of skin cancers carried from January 2011 to December 2011. Histologically diagnosed skin cancers were reviewed and analyzed according to age, gender, site of distribution and histological types.

Results: Hundred histologically diagnosed skin malignancies were reported during the period under review. Sixty cases (60%) were males and 40 cases (40%) females with a male to female ratio of 1.5:1. Age ranged from 22 years to 86 years. Mean age was 57.05+₋11.39 SD. Mean duration of disease in months were 16.78+₋9.07SD. Basal cell carcinoma (BCC) was the most common malignancy consisting of 32(32%) cases followed by Squamous cell carcinoma (SCC 18%) with 10 (10%) cases of melanoma and 9(9%) cases of Mycosis Fungoides. Actinic Keratosis, Kaposi's sarcoma, Bowen's disease, Dermatofibroma, Atypical fibroxanthoma constituted the remaining.

Conclusion: The most common skin malignancy was BCC followed by SCC and melanoma. Larger studies should be conducted to ascertain the actual prevalence of skin tumors.

Key words: Cutaneous malignancies, Squamous cell carcinoma, Basal cell carcinoma, Melanoma, Kaposi's sarcoma.

This article may be cited as: Paracha MM, Shah AA, Irfanullah, Khan MA, Khan SA. Pattern of skin malignancies in patients presenting to dermatology department Hayatabad Medical Complex Peshawar. J Postgrad Med Inst 2014; 28(1):58-61.

INTRODUCTION

Skin is the largest organ in human body. Cutaneous malignancies are estimated to represent 20- 30% of all malignancies in Caucasians, 2% to 4% in Orientals and 1% to 2% of all cancers in Africans and Indians¹. Among Caucasian population^{2,3} it has been recognized as the most common malignancy. In Singapore, skin cancer is ranked seventh in their cancer registry⁴.

Three most frequent primary skin cancers are basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and malignant melanoma. BCC and SCC, in combination referred to as non melanoma skin cancers (NMSC), and malignant melanoma are common in white populations.¹ The incidence of skin cancers has progressively

increased particularly that of cutaneous melanoma over the last few decades.⁵ Incidence of NMSC is highest in Australia⁶ USA⁷ and in Finland⁸ BCC is more common. NMSC are not usually life threatening but morbidity is a main concern. 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. Studies regarding Cutaneous malignancies are very few and not been reported from KPK therefore this study is conducted to know the pattern of cutaneous malignancies in KPK.

METHODOLOGY

This was a prospective study of all histologically

diagnosed malignant skin lesions seen over a period of one year. Patient presenting to Hayatabad Medical Complex Dermatology outpatient department who were having suspected lesions were included in study. They were fully interviewed regarding their profession indoor or outdoor, application of any irritant or allergen, any collagen vascular disease history of trauma or secondary to burn. Lesions were biopsied and histopathology of lesion done. In addition, histopathology records of all malignancies during the study period which were referred from other departments of Hayatabad Medical Complex were reviewed and included in study to determine relative frequency of skin malignancies. Total of 165 pt were send for biopsy and histopathology. Out of 165 patients 100 patients turned out to be having skin tumours.

RESULTS

Hundred histologically diagnosed skin malignancies were reported during the period under review. Sixty

cases were males and forty cases were females with a male to female ratio of 1:5.1. Age ranged from 22 years to 86 years. Mean age was 57.05 ± 11.39 SD. Mean duration of disease were 16.78 ± 9.07 months. Out of sixty males thirty two were having BCC, 18 SCC, 10 Melanoma, 9 Mycosis Fungoides, 7 Actinic keratosis and rest were other rare cutaneous malignancies.(Table 1)

Out of forty female 14 were having BCC, 2 SCC, 2 Melanoma, 3 Kaposi sarcoma, 3 Mycosis Fungoidies, rest were having rare cutaneous malignancies.

Non melanotic skin cancer was found to be more common between 4th to 9th decades. Melanoma was found between 5-7th decade. Mycosis Fungoides was found in 4-7th decade while rest of tumours presented in different age groups. Dermatological malignancies were most commonly found in outdoor workers. (18 indoor versus 82 outdoor)

Site wise involvement was, Scalp in 8 patients, Face in 45 patients, trunk in 24 patients, upper limb in 17

Table 1: Pattern of Malignancies

	Frequency	Percent
BCC	32	32.0
SCC	18	18.0
Melanoma	10	10.0
Kaposi Sarcoma	3	3.0
Dermatofibroma	4	4.0
Atypical fibroxanthoma	2	2.0
Mycosis fungoides	9	9.0
Actinic keratosis	7	7.0
Bowen Disease	2	2.0
Basiquamous	3	3.0
Fibrosarcoma	1	1.0
Acral lentigenous melanoma	3	3.0
Malignant fibrous histocytoma	1	1.0
Myxoid sarcoma	1	1.0
Interadermal naevous	4	4.0
Total	100	100.0

Table 2: Site of Malignancies

	Frequency	Percent
Scalp	8	8.0
Face	45	45.0
Trunk	24	24.0
Upper Limb	17	17.0
Lower limb	6	6.0
Total	100	100.0

patients and lower limb in 6 patients.(Table 2)

The most common age group for malignancy was 41-80 years with 26 cases detected, followed by the age group 51-60 years with 20 cases. SCC was the most common consisting of 40 (40%) cases followed by BCC with 30 (30%) cases, and melanoma with 13 (13%) cases. Malignancy was present mainly in outdoor workers (82 versus 18). Most cases of non melanotic skin cancers were found in head and neck region among which face was found to be most common site for NMSC.

DISCUSSION

The incidence of skin cancer is under-estimated despite the ease and accessibility of the skin to clinical examination and biopsy procedures. In the absence of such data, the analysis of histopathology reports should provide a good reflection on the pattern of skin cancer in Khyber Pakhtunkhwa.

In our study, we noted that BCC is the commonest skin cancer followed by SCC, MM. In Singapore, Koh et al also noted that BCC was the commonest skin cancer in their study followed by SCC and MM.⁴ In our study CL was found to be 9% which is same as found in study done by Yap and Pubalan¹¹ which show 9.2% cutaneous lymphoma. BCC is commonly seen in males with a male to female ratio of 2: 1¹². In Australia, the incidence of BCC in those aged under 40 is higher in women than men, after which rates in men exceed women¹³. However, different studies showed male predominance in skin malignancies which correlate with our study (1.5:1). Male to female ratio was between 1.5 and 1.9 among the Singaporean and Chinese (4). CL is more common in males with a ratio of 2:1¹⁴. MM has almost equal sex distribution among Japanese but more common in males among Singaporean Chinese^{4 15}. Our study showed male predominance in case of cutaneous melanoma which may be due to our males which are mostly outdoor workers and females are mostly house wives and indoor worker. In Yapp and Pubalan study¹¹, we noted that both these conditions were more common in females. Nevertheless, the number of patients in this study is small and might not be representative of the population in the whole state.

Skin cancer in Bahrain affected male above the age of 30 years with 70.2% of all patients

were above the age of 60 years old. This pattern among the Bahraini group is close to that in Saudi Arabia^{16,17}. Our study showed malignancies to be more common in 4th to 8th decade, which is almost comparable. Present study also shows that 53% of the reported skin cancers were found in the head and neck region which demonstrate the major influence of sun exposure in the development of skin cancers. The frequency of skin cancers in men and women is different.

Present study shows a male preponderance comparable to other studies.^{18,19} BCC was the commonest skin cancer in the present series similar to study done by Yap FBB.¹¹ SCC commonly occurs on sun damaged skin. It can also arise in the precursor lesions such as Actinic keratosis, Bowen's disease, Leukoplakia or chronic ulcers/scars²⁰. The most common histopathological pattern was the well differentiated form constituting 65% comparable to study by Alakloby *et al.*²¹

SCC ranked the second most frequent tumor after BCC which is comparable with other studies^{11,22}. BCC in this series predominantly involved the face. Melanoma was the third most common lesion in the present study. Melanoma is the most lethal cutaneous malignancy. Although, it comprises about 3% of all skin cancers, it accounts for about 75% of all skin cancer

deaths¹⁴ The male preponderance is similar to the study by, Sharma *et al.*²³ reported a higher male preponderance in India. Skin cancers arising from the cutaneous appendages are common

but benign. As the region of head and neck is rich in appendages, they frequently arise in these areas. The other tumors rarely seen were dermatofibroma, atypical fibroxanthoma and Kaposi's sarcoma and actinic Keratosis.

CONCLUSION

Malignant skin lesions comprise a small but significant proportion of patients with cancer. BCC is the commonest histological variety unlike in western countries. The knowledge of the frequency of histopathological patterns can help in viewing the prognostic outlook for patients and planning an effective management.

REFERENCES

1. World Health Organization. GLOBOCAN 2000: cancer incidence, mortality and prevalence worldwide. Geneva: WHO; 2001.
2. Diepgen TL, Mahler V. The epidemiology of skin cancer. *Br J Dermatol* 2002;146:1-6.
3. LeBlanc WG, Vidal L, Kirsner RS, Lee DJ, Caban-Martinez AJ, McCollister KE, et al. Reported skin cancer screening of US adult workers. *J Am Acad Dermatol* 2008;59:55-63.
4. Koh D, Wang H, Lee J, Chia KS, Lee HP, Goh CL. Basal cell carcinoma, squamous cell carcinoma and melanoma of the skin: analysis Singapore Cancer Registry Data 1968-1997. *Br J Dermatol* 2003;148:1161-6.
5. Leiter U, Garbe C. Epidemiology of melanoma and non melanoma skin cancer--the role of sunlight. *Adv Exp Med Biol* 2008;624:89-103.
6. Howe HL, Wingo PA, Thun MJ, Ries LA, Rosenberg HM, Feigal EG, et al. Annual report to the nation on the status

- of cancer (1973 through 1998), featuring cancers with recent increasing trends. *J Natl Cancer Inst* 2001;93:824-42.
7. Marks R. Epidemiology of non-melanoma skin cancer and solar keratoses in Australia: a tale of self-immolation in Elysian fields. *Australas J Dermatol* 1997;38:26-9.
 8. Martinez JC, Otley CC. The management of melanoma and nonmelanoma skin cancer: a review for the primary care physician. *Mayo Clinic Proc* 2001;76:1253-65.
 9. Hannuksela-Svahn A, Pukkala E, Karvonen J. Basal cell skin carcinoma & other nonmelanoma skin cancers in Finland from 1956 through 1995. *Arch Dermatol* 1999;135:781-6.
 10. American Cancer Society. *Cancer facts and figures 2007*. Atlanta: American Cancer Society; 2007.
 11. Yap FBB, Pubalan B. Pattern of cutaneous malignancies in a tertiary hospital in Sarawak. *Malays J Dermatol* 2009;22:53-37.
 12. Tran H, Chen K, Shumack S. Epidemiology and aetiology of basal cell carcinoma. *Br J Dermatol* 2003;149:50-2.
 13. Staples M, Marks R, Giles G. Trends in the incidence of non-melanocytic skin cancer (NMSC) treated in Australia 1985-95: are primary prevention programs starting to have an effect? *Int J Cancer* 1998;78:144-8.
 14. Panda S. Mycosis fungoides: current trend in diagnosis and management. *Indian J Dermatol* 2007;52:5-20.
 15. Ishihara K, Saida T, Yamamoto A. Updated statistical data for malignant melanoma in Japan. *Int J Clin Oncol* 2001;6:109-16.
 16. Mahboubi E. Epidemiology of cancer in Saudi Arabia, 1975-1985. *Ann Saudi Med* 1987;7:267-76.
 17. Akhtar SS, Reyes LM. Cancer in Al-Qassim, Saudi Arabia. *Ann Saudi Med* 1997;17:595-600.
 18. Schwartz RA. *Skin cancer: recognition and management*. 2nd ed. New York: Springer- Verlag; 2008.
 19. Mahmoud SF, Azadeh B. Basal cell carcinoma in Qatar. *Int J Dermatol* 1996;35:704-6.
 20. Gendleman MD, Victor TA, Tsitsis T. Nonmelanoma skin cancer. In: Winchester DP, Jones RS, Murphy GP, editors. *Cancer surgery for the general surgeon*. New York: Lippincott Williams &Wilkins; 1999. p. 111-35.
 21. Alakloby OM, Bukhari IA, Shawarby MA. Histopathological pattern of non melanoma skin cancers at King Fahd Hospital of the University in the Eastern Region of Saudi Arabia during the years 1983-2002. *Cancer Ther* 2008;6:303-6.
 22. Laishram SR, Banarjee A, Punyabati P, Sharm CDL. Pattern of skin malignancies in manipur india. A 5 year histopathological review. *J Pak Assoc Derma* 2010;20:128-32.
 23. Sharma K, Mohanti BK, Gaura R. Malignant melanoma: a retrospective series from a regional cancer centre in India. *J Cancer Res Ther* 2009;5:173-80.

CONTRIBUTORS

MMP conceived the idea, planned and wrote the manuscript of the study. AAS, I and SAK helped in the write up of the manuscript. MAK did the data analysis of the study. All the authors contributed significantly to the research that resulted in the submitted manuscript.