



HISTOPATHOLOGICAL STUDY OF SKIN TUMOURS IN A TERTIARY CARE HOSPITAL

Pathology

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ABSTRACT

Skin tumours have overlapping clinical presentation and sometimes pose diagnostic difficulty on clinical ground alone. Hence histopathological examination is mandatory for its correct diagnosis. A retrospective study was conducted in department of pathology at a tertiary care hospital for the period of 3 years. Total 190 (2.44%) cases of skin tumours were encountered in the present study. Malignant tumours were most common (55.26%) as compared to benign tumours (44.74%). Benign tumours were commonly seen in the 2nd to 5th decade of life while malignant tumours were commonly seen in the 5th to 7th decade of life. Melanocytic tumours were most common in the benign category (29.41%) followed by epidermal tumours (22.35%). Squamous cell carcinoma was the most common malignant skin tumour (56.19%) followed by basal cell carcinoma (20.95%). As skin tumours pose clinical diagnostic difficulty to distinguish between benign and malignant tumours, histopathological examination is mandatory for diagnosis.

KEYWORDS

Skin Tumours, Histopathology

INTRODUCTION:

Skin is the largest organ in the body. Incidence of skin tumours has been increased dramatically over last several decades due to factors like sun exposure, radiation etc. Skin tumours show great variation in clinical presentation, biological behavior and histological pattern.¹ Skin tumours pose great challenge to surgeons as some benign tumours can be confused with malignant tumours. Even sophisticated technology like computerized tomography (CT) may not be useful in differentiation of malignant nature of some skin tumours. In such cases histopathological examination is mandatory for its diagnosis and pattern analysis.² Hence the present study was undertaken to evaluate spectrum of all benign as well as malignant neoplasms of skin using World Health Organization classification 2018.

MATERIALS AND METHODS:

The present study was carried out in the department of Pathology at a tertiary care hospital. It was retrospective study from June 2014 to May 2017 for the duration of 3 years. The study included tumours of epidermis along with adnexal tumours of skin. Mesenchymal tumours of skin, hematomatous tumours of skin, neural tumours of skin, nonneoplastic lesions of skin and all tumours arising from mucocutaneous junction were excluded. Data was retrieved from departmental records; tissue blocks and slides. All the biopsies and specimens received in histopathological section were received in 10% formalin and fixed for 24 hours. 4 – 5 microns thick sections were prepared and then stained with hematoxylin and eosin. Cases were classified as per World Health Organization classification of tumours 2018. Ethical clearance was obtained from ethical committee of institution.

RESULTS:

During the study period of 3 years, 4302 specimens were diagnosed as cancers of various sites in the body out of which malignant skin tumours accounted for 105 (2.44%) cases. Benign and malignant tumours of skin comprised of 190 cases in the present study. Out of 190 skin tumours 85 (44.74%) were benign and 105 (55.26%) were malignant. The ratio of benign to malignant tumours was 0.81:1 indicating predominance of malignant tumours of skin.

Amongst the benign category maximum number of cases 64 out of 85 (75.29%) were seen in 2nd to 5th decade of life. Female were most commonly affected 54.12% (46 out of 85) as compared to males 45.88% (39 out of 85). In the benign category; melanocytic tumours were commonest 48.23% (41 out of 85), followed by adnexal tumours 29.41% (25 out of 85) and epidermal tumours 22.35% (19 out of 85).

As compared to benign tumours maximum number of malignant

tumours 72.38% (76 out of 105) were seen in 5th to 7th decade of life. Malignant tumours were seen most commonly in males 60% (63 out of 105) as compared to females 40% (42 out of 105). Male to female ratio was 1:0.66. Squamous cell carcinoma was the commonest malignant tumour 56.19% (59 out of 105) followed by basal cell carcinoma 20.95% (22 out of 105). Secondaries from epithelial malignancies were the least common 1.9% (2 out of 105) in malignant skin tumours.

^{Table 2} Tumours of hair follicle differentiation were commonest in skin adnexal tumours (48.48%) followed by tumours of sweat gland differentiation (44.44%).

DISCUSSION:

Skin tumours constitute a small but significant proportion of malignancies. They can affect people of all ages and is an ideal subject for study from morphological point of view.

Skin malignancies are rare in India as compared to western countries. Skin malignancies constitute 1-2% of all diagnosed cases in India.³ Malignant lesions at various sites in the body were seen in 4302 cases in the study period. Of these cancers of skin accounted for 105 cases (2.44%). Deo S et al and Bhudraja SN et al also found 2.4% and 2.08% incidence of malignant tumours of skin which is in comparison to present study.^{4,5} Out of 190 tumours of skin, malignant tumours of skin accounted for 55.26% of tumours as compared to benign tumours which constitute 44.74% of cases. Gundalli S et al also found higher percentage of malignant tumours i.e. 60.16%.⁶ However Azad S et al reported 72.8% incidence of benign tumours of skin.⁷ Higher incidence of malignant tumours of skin in the present study may be due to increased number of cases referred to tertiary care hospital.

Benign tumours were commonly seen in 2nd to 5th decade of life in the present study. Gundali et al also found benign tumours of skin in the 3rd to 5th decade of life.⁸ Females were commonly affected accounting for 54.12% in benign tumours of skin with male to female ratio was 0.8:1. Sherpa et al shared similar experience of female predominance in benign skin tumours with male to female ratio of 1:1.2.⁹ Benign melanocytic tumours were commonest in the present study (48.23%). However, Bari et al found keratinocytic tumours of skin were the commonest benign skin tumours.⁹ This may be due to removal of benign melanocytic tumours for cosmetic reasons in the present study.

Malignant tumours were commonly seen in 5th to 7th decade of life in the present study. Similarly Karki D et al found malignant tumours of skin in 6th to 8th decade of life.¹⁰ A study done by Heidari et al also mentions similar trend in age distribution with increase in incidence by the age group of 50-59 years and rising sharply thereafter.¹¹ Bari V et al

in there histopathological review of 125 cases of skin tumours concluded that squamous cell carcinoma was the commonest malignant skin tumour (45.9%) followed by basal cell carcinoma (34.4%).⁹ In the present study the incidence of squamous cell carcinoma was 56.19% followed by basal cell carcinoma (20.95%). Tumours of hair follicle differentiation were commonest in skin adnexal tumours (48.48%). Similarly, Kaur K et al also reported tumours of hair follicular differentiation were the commonest in skin adnexal tumours.¹²

CONCLUSION:

Skin tumours accounted for 2.44% of all tumours during 3-year study period. It was highlighted rarity of skin tumours. Malignant tumors outnumbered benign skin tumours in the present study. As skin tumours pose diagnostic difficulty histopathological examination is necessary for its diagnosis.

Table No. 1: Histological types of benign skin tumours

Tumours (Total)	Number of cases	Percentage
Epidermal (19)		
Squamous Papilloma	11	12.94
Verruca	8	9.41
Adnexal (25)		
Pilomatricoma	7	8.23
Trichoblastoma	4	4.70
Trichofolliculoma	1	1.18
Syringoma	4	4.71
Hidradenoma	1	1.18
Poroma	6	7.06
Spiradenoma	1	1.18
Syringocystadenoma Papilleferum	1	1.18
Melanocytic (41)	41	48.23
Total	85	100

Table No. 2: Histological types of malignant skin tumours

Tumour	Number of cases	Percentage
Epidermal		
Squamous cell carcinoma	59	56.19
Bowens disease	7	6.66
Verrucous carcinoma	1	0.95
Basal cell carcinoma	22	20.95
Adnexal		
Sebaceous carcinoma	2	1.90
Proliferating trichilemmal tumour	2	1.90
Malignant eccrine poroma	2	1.90
Trichilemmal carcinoma	2	1.90
Malignant melanoma	6	5.71
Secondaries	2	1.90
Total	105	100

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