



STUDY OF SQUAMOUS CELL CARCINOMA OF SKIN –A 7 YEAR STUDY

Dr Shivanand Gundalli*

Assistant Professor Department Of Pathology, Srpatil Medical College Badgandi, Bagalkot. *Corresponding Author

Dr Bharat

Professor, Department Of Pathology.

Dr Santosh

Asst Professor Sr Patil Medical College Badgandi Bagalkot.

ABSTRACT Skin tumours can be difficult to diagnose due to their similar appearance, and even advanced imaging methods may not be effective. Histopathology is a crucial diagnostic tool for excised skin lesions, as it yields a high percentage of pre-malignancies and malignancies. Early detection, diagnosis, and treatment offer the best chance for cure. The present study was carried out in the department period of pathology in a tertiary care centre. This study included tumours of epidermis along with melanocytic tumours and adnexal tumours of skin including secondaries without restricting the study to any particular age limit. Mesenchymal tumours of skin, haematological tumours of skin, neural tumours of skin. We studied total 133 skin tumours in 7 year period of which 33 were squamous cell carcinoma of skin and study was correlating with various authors.

KEYWORDS : skin tumours, squamous cell, diagnosis**INTRODUCTION**

With its appendages, the skin is a dynamic, complex organ that can develop a wide range of tumors. 1. Skin is not merely a barrier against fluid loss and physical harm; it is made up of cells that perform protective roles. 1. Skin tumors arise often in therapeutic settings.

This is frequently the patient's motivation for seeking medical care. The histologic pattern, biologic behavior, and clinical presentation of skin tumors vary greatly. 2

Over the past few decades, there has been a significant increase in the incidence of skin tumors, at least partially due to increased sun exposure. demanding vigilant monitoring. 2

Skin tumours can be difficult to diagnose due to their similar appearance, and even advanced imaging methods may not be effective. Histopathology is a crucial diagnostic tool for excised skin lesions, as it yields a high percentage of pre-malignancies and malignancies. Early detection, diagnosis, and treatment offer the best chance for cure.

MATERIALS AND METHODS

The current investigation was conducted in a tertiary care center's pathology department. This investigation encompassed epidermal tumors as well as melanocytic tumors and adnexal skin tumors, including secondary tumors, without limiting the investigation to any specific age range. skin nonneoplastic lesions, skin mesenchymal tumors, skin hematological tumors, skin neural tumors, and all skin tumors.

The study, which lasted from September 2004 to September 2011, or seven years, was both prospective (2 years) and retrospective (5 years). Departmental records, tissue blocks, and slides provided the data for the retrospective analysis. Tissue specimens, tissue blocks, tissue slides, and clinical records provided the data for this prospective investigation. Clinical information was gathered and kept up to date in compliance with the proforma.

Upon receipt, all biopsies and resected specimens in the histology division were promptly preserved in 10% formalin for a duration of 24 hours. The specimen's ugly characteristics were recognized. The specimen was sectioned in several places. Following processing, they were embedded in paraffin wax. Sections three to five microns thick were produced, and Hematoxylin and Eosin was used to stain them.

After a thorough examination of the sections under a light microscope, the definitive diagnosis was made. Ethical clearance: The institution's ethical council has granted ethical clearance. Statistical techniques used: Afterwards In this investigation, statistical approaches were used.

1. Amount and proportion

2. Characteristic statistics

DISCUSSION:

Skin tumors make up a minor yet important group of patients. These tumors are so common that they can impact individuals across all age groups, making them a suitable topic for research from both clinical and structural perspectives.

For this research, the World Health Organization's (WHO) 2003 classification of skin tumors was adhered to. Over a span of seven years, a total of 133 skin tumor cases were recorded. Among these, skin cancers accounted for 80 cases, representing 2.5% of all cancers diagnosed across all departments within the Pathology Department. The proportion of benign tumors to malignant tumors was 1.66:1.

Skin cancers are uncommon in India when compared to Western nations. In India, skin cancers make up approximately 1-2% of all diagnosed cancers.

The frequency of occurrence of cutaneous malignant neoplasms evaluated by various investigators ranged from 1.87% to 8.16% of all malignancies, as the table below illustrates.

Table 1: Following Table Shows Distribution Of Skin Cancers In Various Studies With Respect To Cancers Of Other Organs

Author	Percentage of skin cancer
Deo S V et al 27 (2005) (n=77)	2.4%
Budharaja S N et al 29 (1972) (n=102)	2.08%
Chakravorthy R C et al 29 (1968) (n=115)	1.87%
Kapoor R et al 73 (1993) (n=148)	8.16%
Present study (2011)(n=80)	2.5%

The table below shows comparative distribution of different malignant neoplasms of skin in various studies.

Table 2: Comparative Distribution Of Different Malignant Tumours Of Skin In India In Various Studies

Author	Bhudraja SN et al 8 (1972) (n=102)	Chakravarty RC et al 9 (1968) (n=115)	Deo SV et al 7 (2005) (n=77)	Present study (2011) (n=80)
Type of tumour				
Squamous cell carcinoma	49.02%	64.4%	55.8%	46.25%
Verrucous carcinoma	-	-	-	5%
Basal cell carcinoma	17.65%	16.5%	18.1%	26.25%
Malignant melanoma	29.41%	8.7%	26.1%	11.25%
Adnexal carcinomas	0.98%	2.6%	-	7.5%
Dermatofibrosarcoma	2.94%	-	-	-

Table 2: Comparative distribution of various malignant skin tumors in India in various studies.

In the present study SCC accounted for maximum number (46.25%) of cases.

This finding is similar to the study of Budharaja S N et al⁸ 1972. However Chakravarthy⁹ et al 1968 found higher incidence of squamous cell carcinoma (64.4%) because geographical area selected by him for the study belonged to latitude of 22.5N, which is an area with maximum sun exposure.

In the present study the most common malignancy was squamous cell carcinoma with occurrence of 46.25% cases of total skin malignancies followed by basal cell carcinoma (26.25%), verrucous carcinoma (5%), adnexal carcinoma (7.5%) and malignant melanoma (11.25%).

In the study by Deo S V et al⁷(2005) ,Bhudraja S N et al⁸(1972), Chakravarthy R C et al⁹(1968), there was considerable difference in frequency of occurrence of squamous cell carcinoma, basal cell carcinoma malignant melanoma and adnexal carcinoma as compared with the present study which is due to the variable sample sizes of other studies and different geographical areas selected for their studies.

Table 3 shows the locational distribution of squamous cell carcinoma in both sexes.

Table 3: Location Wise Distribution Of Squamous Cell Carcinoma In Both Sex.

Site	Males		Females		Total	
	No	%	No	%	No	%
Head and neck	10	38.47	4	36.36	14	37.8
Extremities	4	15.38	4	36.36	8	21.7
External genitalia	12	46.15	3	27.28	15	40.5
Total	26	100	11	100	37	100

The table indicates that external genitalia were the most common site of squamous cell carcinoma in males and females, respectively.

Squamous cell carcinoma primarily affected the head, neck, and extremities.

Table 4: Age And Sex Distribution Of Squamous Cell Carcinoma

As shown in the above table the maximum number (83.8%) of cases of squamous cell carcinoma were seen in the age group of 6th to 8th decade in both males and females.

Figure 1: Age distribution of squamous cell carcinoma

As shown in the above bar diagram maximum number (43.2%) of cases of squamous cell carcinoma were in the age group of 60-69 years.

Figure 2: Sex distribution of squamous cell carcinoma In the present study squamous cell carcinoma was predominantly seen in males (70.2% cases) with the male to female ratio of 2.3:1.

Table 6 shows Broder's grading of squamous cell carcinoma.

Grade: Number of cases. Percentage: I: 67.57, II: 10.81, III: 10.81, IV: 5.41.

As seen in the table above, all squamous cell carcinomas were classed conventionally as moderate to poorly differentiated, in accordance with Broder's grading system. The majority of squamous cell carcinomas were well differentiated (67.5%). All 25 examples of Broder's grade I.

correlate to well-differentiated squamous cell carcinomas. Four instances of grade II and III were moderately differentiated, whereas four cases of grade IV were poorly differentiated squamous cell carcinoma.

DISCUSSION

Skin tumors account for a small but important fraction of cancer patients. Skin tumors are an excellent subject for clinical and morphological research since they are so common and can affect people of all ages. Over a 7-year period, the Department of Pathology conducted a histological research on 133 cases of skin tumors, including epidermis, melanocytes, and appendages. Out of 133 instances, 53 were diagnosed as benign and 80 as malignant skin tumors, accounting for 39.84% and 60.16%, respectively. The ratio of benign to malignant skin tumors is 0.66:1, indicating that malignant lesions predominate, with a male to female ratio of 1.14:1. Of the 3200 malignancies discovered at the Department of Pathology, 80 instances. Table below shows grading of squamous cell carcinoma in 37 cases.

CONCLUSION

Given that the skin is the largest organ, it is only natural that a high number and diversity of cancers occur in it. Because skin is made up of several tissues, it is home to a wide range of tumors, both epithelial and non-epithelial. Some tumors are uncommon, while others exhibit a wide range of physical characteristics that confuse pathologists. It is rare for a general surgical pathologist to be familiar with all skin tumors. Skin tumors account for a small but important fraction of cancer patients. The skin is a complicated organ. Because of its intricacy, the skin can develop a variety of disorders, including Tumors of the epidermis, epidermal appendages, and dermal tissue. The diagnosis:

Table 5: Conventional Grading Of Squamous Cell Carcinoma

As shown in the above table out of 37 cases, majority of squamous cell carcinoma were graded as well differentiated tumours, followed by moderate and poorly differentiated carcinoma.

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