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Original Research Article

Clinico Pathological Study of Skin Tumours in South Karnataka Population

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Conflict of interest: Nil

Abstract

Background: There are many types of skin tumours depends on geographic latitudes, occupational exposure, and sun exposure and skin protection behavior. Hence correlation of macroscopic and microscopic studies can accurately diagnose the skin tumours.

Method: 75 (seventy-five) adult patients having skin tumors were studied. The biopsy was done to study the tumors histopathologically. Tumors were classified as per the guidelines of WHO. Histopathological findings were correlated with immunohistochemistry findings.

Results: Out of Seventy five, 45 benign and 30 malignant tumours were noted, 44 (58.6%) Keratino cytic, 15 (20%) melanocytic, 13 (17.3%) appandageal, 3 (4%) Hematolymphoid were classified and 15 (50%) basal cell carcinoma was also classified. The highest number was 6 (40%) nodular variants, followed by 4 (26.6%) basosquamous variants.

Conclusion: Skin tumours affect the normal social life. Early diagnosis can prevent morbidity and mortality. Plastic or cosmetic surgery of the face and exposed body organs can be revitalizing.

Keywords: Histopathology Examination, Biopsy, Immuno-histochemistry, Malignant, Benign.

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Introduction

Skin is a complex organ composed of epidermis, dermis, and skin adnexa, giving rise to a multitude of tumors [1]. A tumor is an atypical mass of tissue whose growth outpaces and deviates from normal tissue growth, and its growth continues in an uncontrolled way even after the stimuli causing the change have stopped [2].

Tumors are broadly classified; skin tumors are generally divided into surface epidermal tumors and tumors of epidermal appendages.

Variations in types, geographic latitudes, occupational exposure, sun exposure, and skin protection behavior play a vital role in the types of tumors of the skin [3].

Dermoscopy establishes a direct clinical and histological association between the microscopic and macroscopic features of a skin tumour [4].

Hence an attempt is made to evaluate benign and different types of malignant tumour of skin so that early diagnose can prevent morbidity and mortality.

Material and Method

75 adult patients admitted at Siddharth Institute of Medical Sciences and Research Centre, T. Begur, Karnataka-572107, were studied.

Inclusion Criteria: The patients have tumors of the skin and its appendages. The patients who gave their consent in writing for the study were selected.

Exclusion Criteria: The patients who refused a biopsy and also refused to give consent in writing were excluded from the study.

Method: Detailed history reference to mode of onset, characteristics, and distribution of lesion was noted in every patient. The histopathological examination (HPE) findings of the biopsy slide were recorded and analyzed. The tumors were classified as per the guidelines of WHO. The histopathological findings are correlated with the immunohistochemistry findings.

The duration of the study was from August 2022 to December 2025.

Statistical Analysis: Different types of tumors are classified with percentages. The statistical analysis was carried out with SPSS software. The ratio of male and female neonates was 2:1.

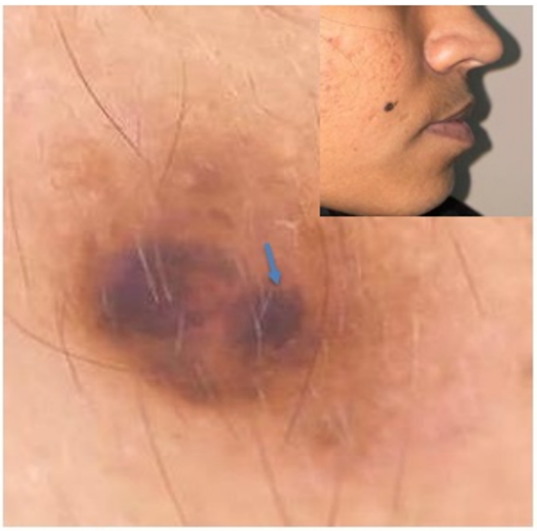

Figure 1 : Dermoscopy of melanocytic nevi

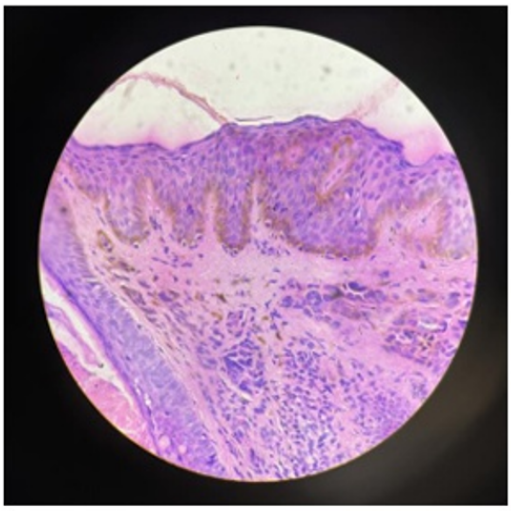

Figure 2 : Histopathology of melanocytic nevi

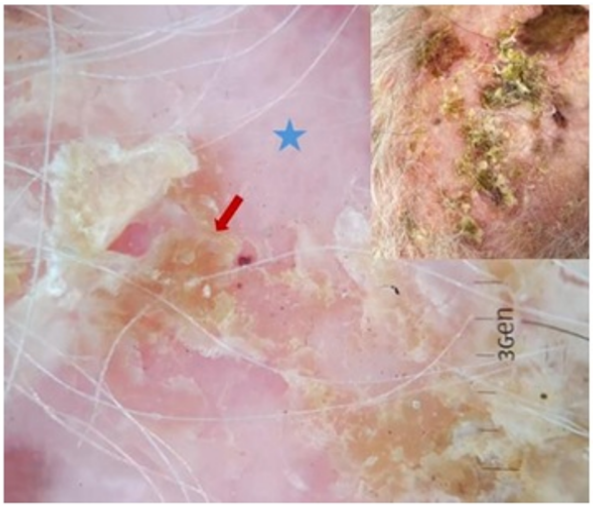

Figure 3 : Dermoscopy of actinic keratosis

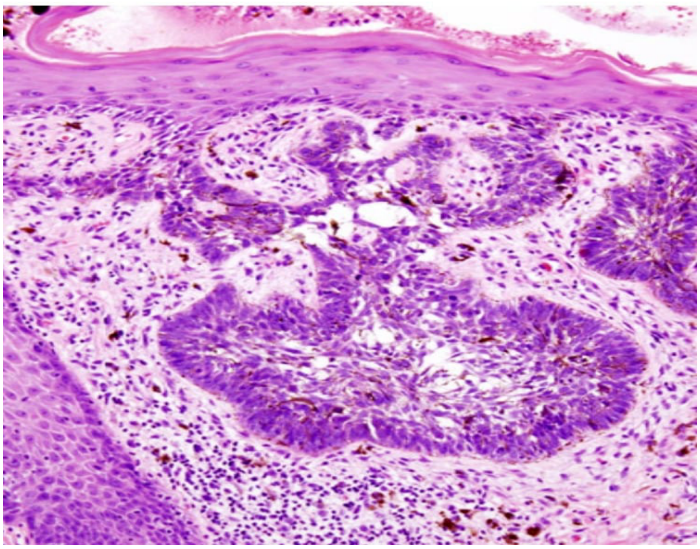

Figure 4: Histopathology of Basal cell carcinoma

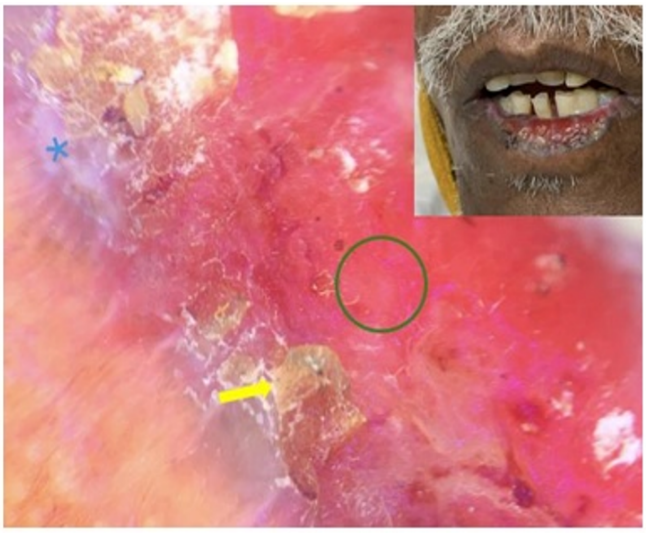

Figure 5 : Dermoscopy of Actinic chelitis

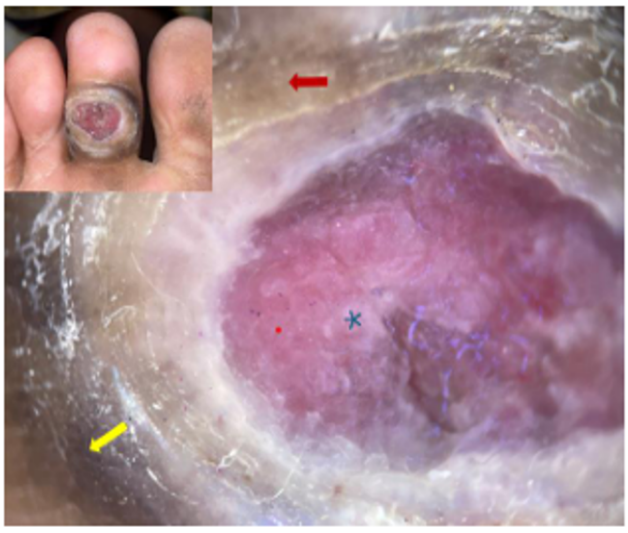

Figure 6 : Dermoscopy of Acral melanoma

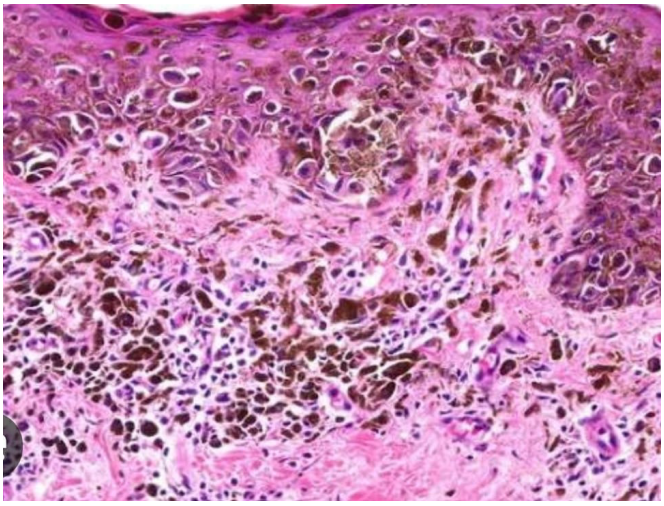

Figure 7: Histopathology of Malignant Melanoma

Observation and Results

Table 1: Study of different skin tumors:

- Keratinocytic: 21 (46.6%) benign, 23 (76.6%) malignant and 44 (58.6%) total.
- Melanocytic: 13 (28.8%) benign, 2 (6%) malignant, 15 (20%) total.
- Appandageal: 11 (24.4%) benign, 2 (6.6%) malignant, 13 (17.3%) total.
- Hematolymphoid: 3 (10%) malignant, 3 (4%) total.

(A) In the detail study of keratocytic tumor:

- Verrucae: 11 (52.3%) benign
- Saborrhic keratitis: 10 (47.6%) benign
- Brown disease: 1 (3.3%) malignant
- Squamous cell carcinoma: 15 (50%)

(B) In the detail study of Melanocyte: 10 (76.9%) Intradermal Nerous, 2 (15.3%) compound Nervis, 1 (7.6%) Giant hairy Nervus, 2 (6.6%) malignant melanoma.

(C) Detail study of Appandageal tumours: 2 (18.8%) benign syringoma, 1 (9%) Hidradenoma, 1 (9%) Nodular hidradenoma, 2 (18.8%) piroma, 1 (9%) syrngocystadenoma papilloferum porocorcinoma was malignant i.e., 1 (50%).

(2) Follicular pilo matricoma was 1 (9%) and 1 (9%) trichoepthelioma

- Malignant: (50%) proliferating tricholemmal tumour.
- Benign: sebaceours adenoma 1 (9%) and 1 (9%) sebacemo

(D) Detail study of Hematolymphoid tumours:

- Malignant tumours: 1 (33.3%) leukemia, 1 (33.3%) mycosis fungoides, 1 (33.3%) Non-Hodgiking lymphoma

Table 2:

Study of subtypes of Basal cell carcinoma: 6 (40%) Nodular variant, 4 (26.6%) Baso squamous variants, 1 (6.6%) infiltrating variant, 1 (6.6%) Nodulocystic variant, 1 (6.6%) superficial spreading variant, 1 (6.6%) pigmented variant, 1 (6.6%) Adenoid variant.

Table 1: Study of different skin tumours

Types of Tumours	Benign (45)	Malignant (35)	Total 75
Keratinocytic	21 (46.6%)	23 (7.6%)	44 (58.6%)
Melanocytic	13 (28.8%)	2 (6.6%)	15 (20%)
Appandageal	11 (24.4%)	2 (6.6%)	13 (17.3%)
Hematolymphoid	--	3 (10%)	3 (4%)
(A) Keratocytic tumours	21 (46.6%)	23 (76.6%)	44 (58.6%)
Verrucae	11 (52.3%)	--	11 (14%)
Seborrhic Keratitis	10 (47.6%)	--	10 (13.3%)
Bowen Disease	--	1 (3.3%)	1 (1.3%)
Sq. cell Carcinoma	--	7 (23.3%)	7 (9.3%)
Basal cell Carcinoma	--	15 (50%)	15 (20%)
(B) Melanocyte tumours	13 (28.8%)	2 (6.6%)	15 (20%)
Intradernal Nervus	10 (76.9%)	--	10 (13.3%)
Compound Nerus	2 (15.3%)	--	2 (2.6%)
Giant hairy Nervus	1 (7.6%)	--	1 (1.3%)

Malignant Melaoma	0	2 (6.6%)	2 (13.3%)
(C) Appandageal tumours	11 (24.4%)	2 (6.6%)	13 (17.7%)
1) Apocrine/Ecrine syringoma	2 (18.8%)	--	2 (15.3%)
Hidradenoma Papilliferum	1 (9%)	--	1 (7.6%)
Nodular Hidradenoma	1 (9%)	--	1 (7.6%)
Poroma	2 (18.8%)	--	2 (15.3%)
Syringocystadenoma Papilliferum	1 (9%)	--	1 (7.6%)
Porocarcinoma	--	1 (50%)	1 (7.6%)
2) Follicular pilo matricoma	1 (9%)	--	1 (7.6%)
Trichoepithelioma	--	1 (50%)	1 (7.6%)
3) Sebaceous sebaceous adenoma	1 (9%)	--	1 (7.6%)
Sabaceoma	1 (9%)	--	1 (7.6%)
Sebaceoma carcinoma	--	--	--
(D) Hematolymphoid tumours	--	3	3
Leukemia	--	1 (33.3%)	1 (1.3%)
Mycosis fungoides	--	1 (33.3%)	1 (1.3%)
Nono-Hodgkins lymphoma	--	1 (33.3%)	1 (1.3%)

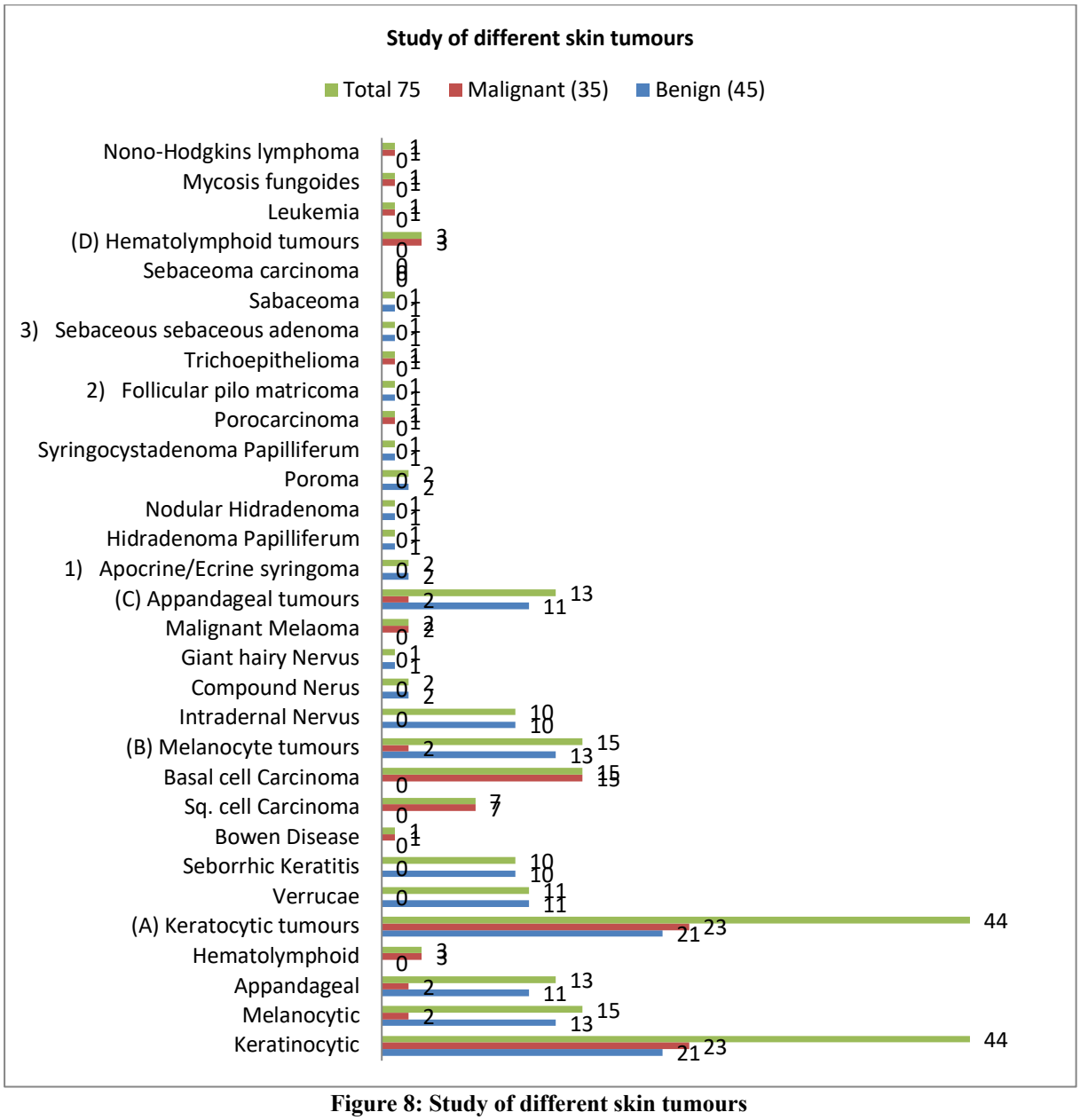

Figure 8: Study of different skin tumours

Table 2: Study of sub-types of Basal cell carcinoma

Basal cell carcinoma	No. of patients (15)	Percentage (%)
Nodular variant	6	40%
Basosquamous	4	26.6%
Infiltrating	1	6.6%
Nodulo cystic variant	1	6.6%
Superficial spreading variant	1	6.6%
Pigmented variant	1	6.6%
Sclerosing variant	1	6.6%

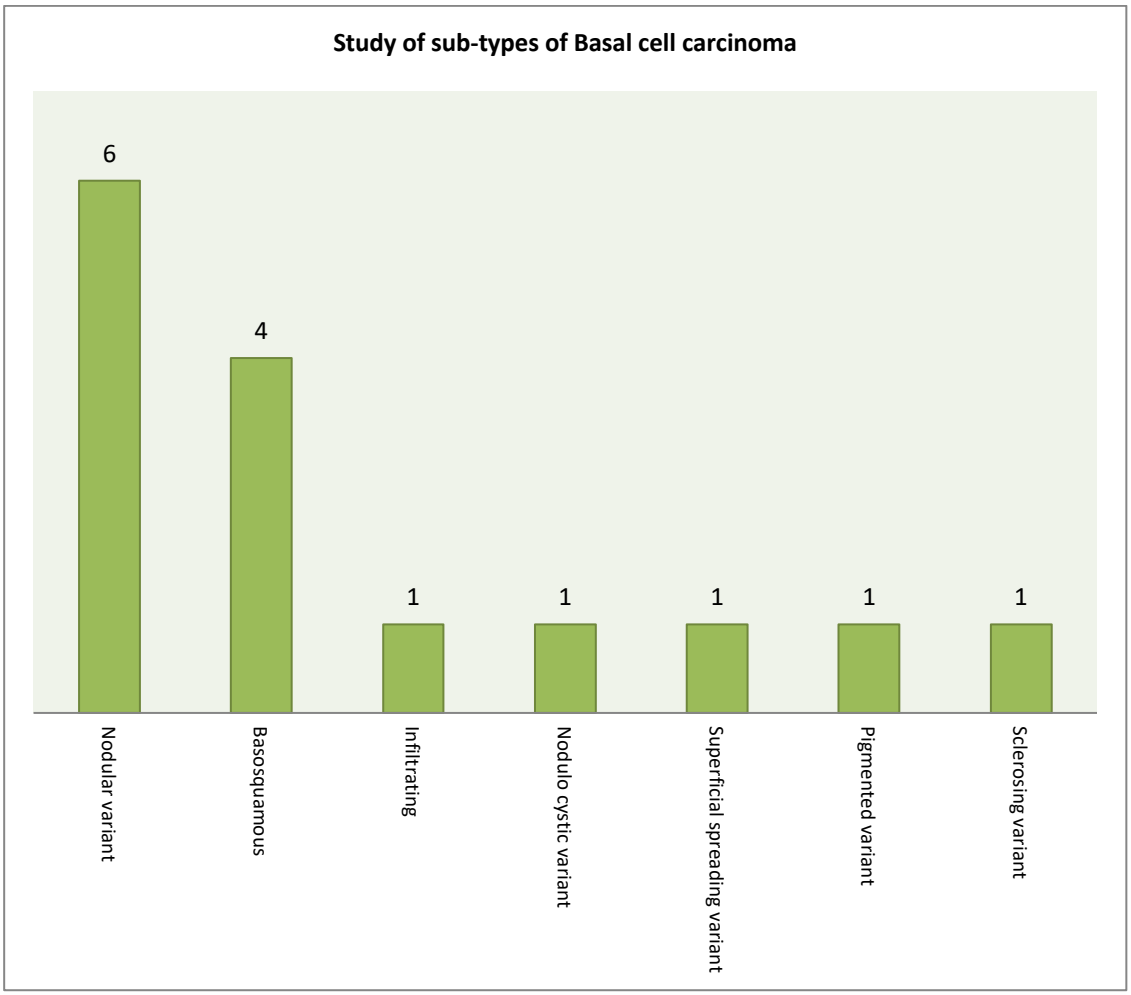

Figure 9: Study of sub-types of Basal cell carcinoma

Discussion

Present clinic-pathological study of skin tumors in the South Karnataka population. Out of 75 skin tumors, 45 were benign and 30 were malignant: 21 (46.6%) were benign keratino cytic and 23 (76.6%) malignant keratinocytic tumors, 13 (28.8%) benign melanocytic tumors, 11 (24.4%) benign appendageal tumors, 2 (6.6%) malignant tumors, and 3 (10%) hemolymphoidal malignant tumors (Table 1). Out of 15 (50%) basal cell carcinomas. The highest incidence was 6 (40%) nodular variants, followed by 4 (2.66%) basosquamous variants. Basal cell carcinomas were noted. These findings and figures (1, 2, 3, 4, 5, 6, and 7) are more or less in agreement with previous studies [5,6,7]. Most commonly seen were benign tumors, followed by malignant and then pre-malignant tumors. The most prevalent benign tumor was melanocytic nevi, the pre-malignant tumor was actinic cheilitis, and the malignant tumor was basal cell carcinoma [8].

The melanocytic cutaneous malignancies usually develop in the first or second decade of life; congenital lesions may occur. The onset of lesions may follow intense sun exposure; the occurrence of congenital lesions is much higher in the Indian population. The lesions are often hypertrichotic, with coarse dark hair developing later than hyperpigmentation [9]. Acantholytic squamous cell carcinoma (ASCC), also known as

pseudoglandular/adenoid, pseudovascular pseudo angiosarcomatous SCC, or adenocanthoma of the liver, is a subtype of cutaneous squamous cell carcinoma. Acantholytic squamous cell carcinoma (ASCC) most commonly presents as a nodular, pink, red, or flesh-colored lesion often associated with ulceration or crusting of the epidermis [10]. Keratinocytic tumors are derived from epidermal and adnexal keratinocytes and comprise a large spectrum of lesions ranging from benign proliferation to malignant squamous and basal cell tumors. Among the benign keratocytic tumors, verrucae are the most common tumors in the present study, followed by seborrheic keratosis. It is also reported that extremities are the common site of verrucae, but they are also observed on the face [11].

Benign melanocytic tumors are also more common in younger age groups, and the majorities were seen on the face. The most common benign melanocytic tumors are intradermal nevus. Most basal cell carcinoma (BCC) are slow-growing relatively non aggressive tumours, but few have an aggressive behavious with local tissue destruction and rarely, metastasis superficial spreading pattern of BCC was treated with Mohs micrographic surgery. The patient also received topical imiquimod considering the risk of recurrence [12]. In some cases cryotherapy was used; it required multiple sittings, which proved cumbersome for patients.

Summary and Conclusion: Skin tumors affect people of all age groups. The benign tumours are seen in younger age group as compared to malignat tumours. The face is the most common site, and keratocytic tumors are the most common skin tumor. Early approaches to medical aid, micrographic surgery, and cryotherapy are also helpful in the early onset of skin tumors. The present study demands further genetic, hormonal, nutritional, environmental, and pathophysiological studies because the exact cause of tumors is still unclear and recurrence is fatal.

Limitation of study: Owing to remote location of research centre, small number of patients lack of latest techniques we have limited finding and results.

This research work was approved by the ethical committee of Sri Siddarth Institute of Medical Sciences and research centre, T. Begur, Karnataka-572107.

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