

Histopathological Study of Tumours and Tumour - Like Lesions of SkinNanditha H. S.¹, Uma K.², Akhila J.³, Shilpa S Biradar⁴¹Associate Professor, Department of Pathology, Akash Institute of Medical Sciences and Research centre, Bengaluru, Devanahalli, Karnataka, India²Associate Professor, Department of Pathology, Akash Institute of Medical Sciences and Research centre, Bengaluru, Devanahalli, Karnataka, India³Assistant Professor, Department of Pathology, Akash Institute of Medical Sciences and Research centre, Bengaluru, Devanahalli, Karnataka, India⁴Professor, Department of Pathology, Akash Institute of Medical Sciences and Research centre, Bengaluru, Devanahalli, Karnataka, India

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Conflict of interest: Nil

Abstract:

Tumours and tumour- like lesions of skin constitute a wide spectrum, affecting all ages and both sexes. Skin adnexal tumours (SATs) present a diverse group, depending on their pattern of differentiation. Most SATs are benign. Although malignant skin tumours are rare, they tend to be aggressive, with a poor clinical outcome. In our study, epidermoid cyst was the commonest tumour- like lesion. The incidence of benign (68.75%) and malignant (31.25%) tumours reported in our study. Syringoma and pilomatricoma were the common benign neoplasms, with two cases each. Three cases of melanoma were reported, making them the commonest malignant tumours of skin.

Keywords: Syringoma, Pilomatricoma, Epidermal Inclusion Cyst, Malignant Melanoma.**DOI:** 10.25258/ijcpr.18.7.232

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Introduction

1. Skin and its appendages form a dynamic organ, known to produce a variety of tumours and tumour- like lesions commonly encountered in clinical practice.
2. The tumours are derived from multipotential undifferentiated cells present within the epidermis or its appendageal structures.
3. Keratinocytic tumours are frequent and pose a significant public health problem, with solar radiation being the main etiologic factor.
4. No known trigger is evident in adnexal neoplasms, although mutation in tumour suppressor gene is seen in some cases. [WHO 2006]
5. Skin tumours and tumour- like lesions present as papules or nodules and pose a great challenge to clinicians
6. Benign tumours can be confused with malignant lesions
7. Histopathology is therefore mandatory for confirmation, helping in prognosis and planning management

Objectives

1. To study the morphologic patterns of tumours and tumour- like lesions of skin
2. To correlate clinical data with histopathologic findings

Material and Methods

1. This is a one-year study carried out from August 2024 to August 2025 in the Department of Pathology, Akash Institute of Medical Sciences and Research Centre, Devanahalli.
2. Biopsies received for suspected tumours and tumour- like lesions of skin were processed routinely and examined microscopically.
3. During the study period, 50 tumours and tumour- like lesions of the skin were reported.
4. Data regarding age, gender, clinical presentation and histopathological types were collected.

Results of The Study

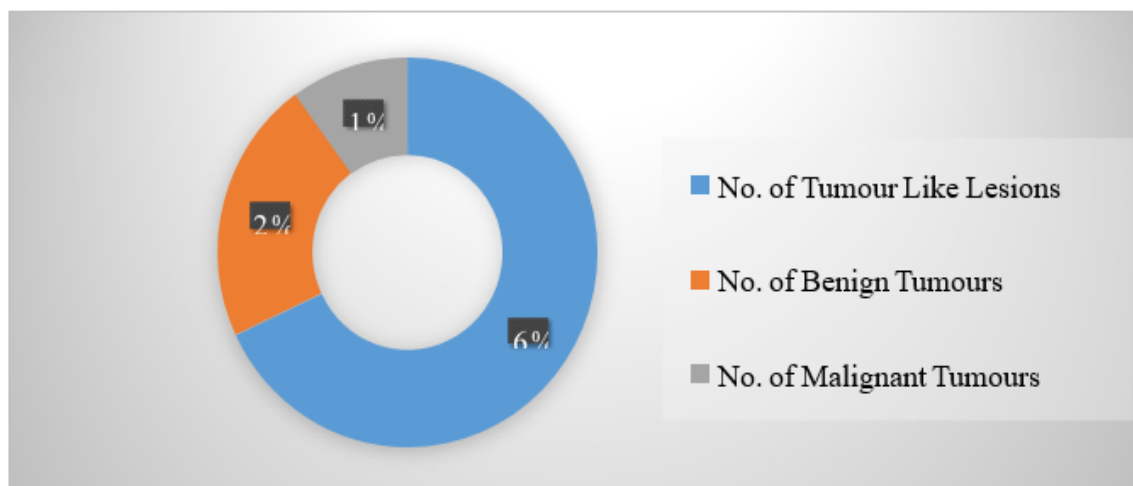


Figure 1: Distribution of Tumour and Tumour Like Skin Lesions

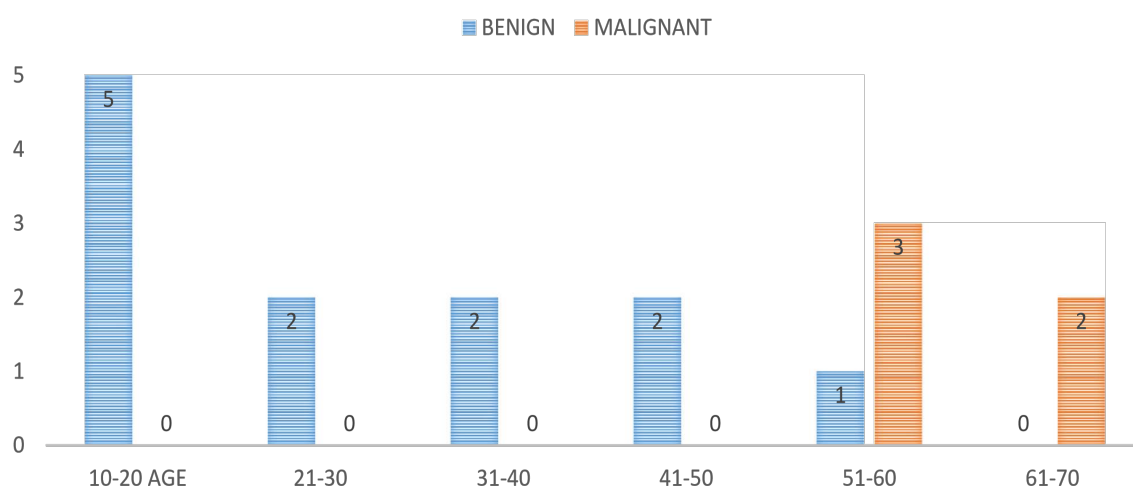


Figure 2: Age Incidence of Tumours

- There was an increased incidence of tumours in the 2nd decade of life
- All were benign tumours in this age group

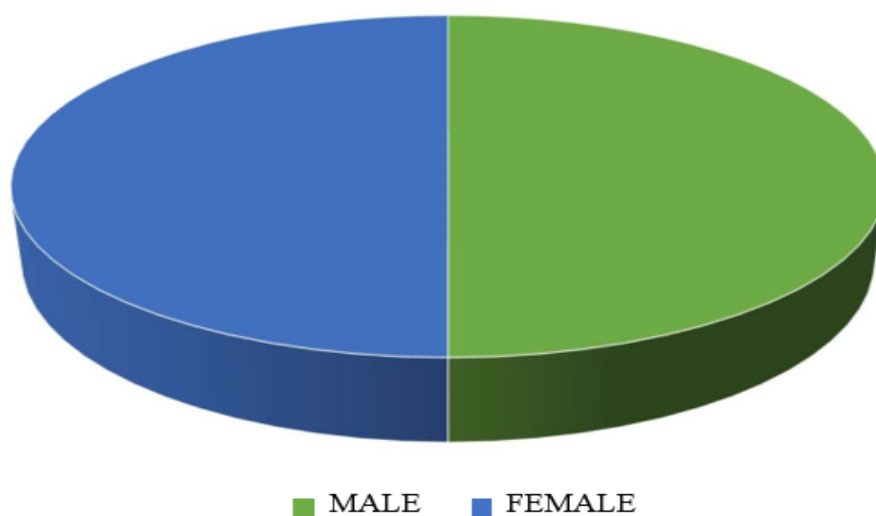
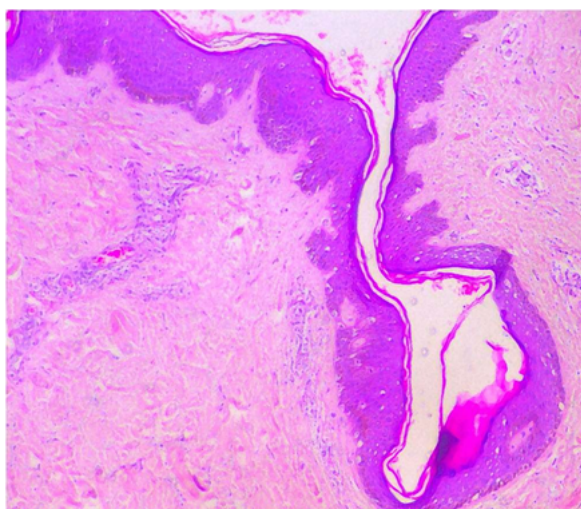
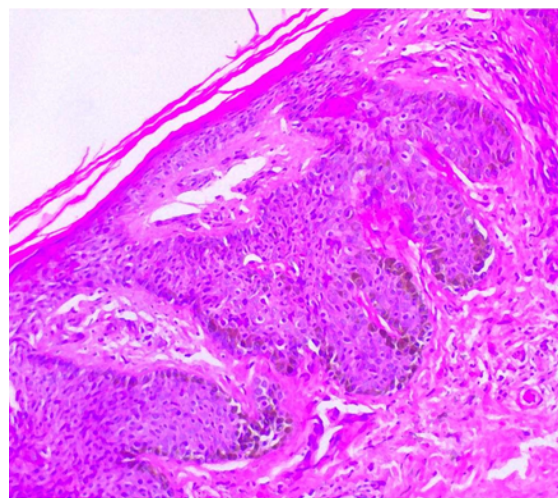
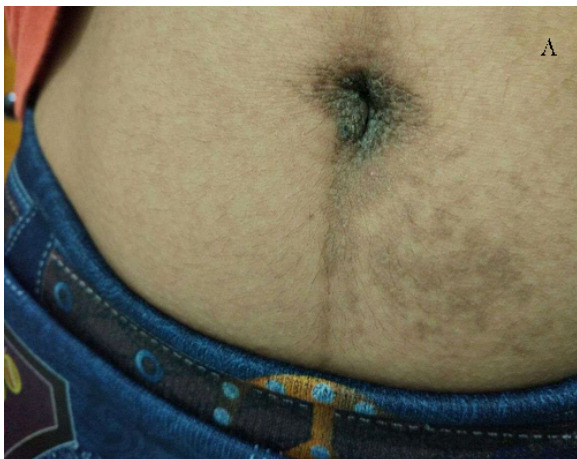
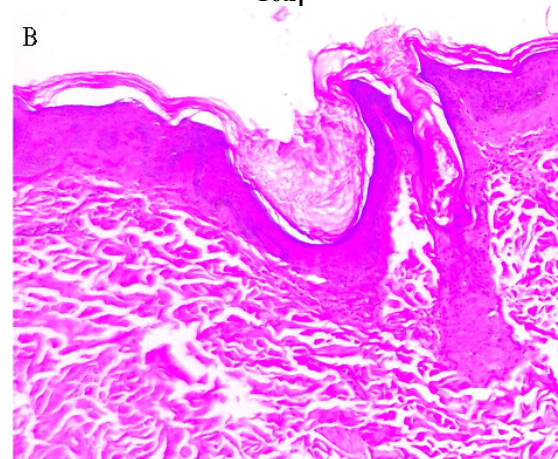


Figure 3: Gender Distribution of Tumours

- Gender distribution was equal for tumours

Table 1: TaHistologic variants of tumour-like lesions and tumours of skin

Tumour Like Lesions	Benign Tumours	Malignant Tumours
Epidermoid cyst 8	Syringoma 2	Malignant melanoma 3
Seborrheic keratosis 5	Pilomatricoma 2	Squamous Cell Carcinoma 1
Acrochordon 4	Trichoepithelioma 1	Basal Cell Carcinoma 1
Pseudoepitheliomatous hyperplasia 3	Squamous papilloma 1	
Infected keratinous cyst 3	Fibroma 1	
Confluent and reticulated papillomatosis 3	Trichofolliculoma 1	
Fibroepithelial polyp 2	Pyogenic granuloma 1	
Intradermal nevus 1	Angiokeratoma 1	
Bowen's disease 1	Trichilemmal cyst 1	
Compound nevus 2		
Nevus sebaceous 1		
Junctional nevus 1		

**Fig. 4: Acrochordon: undulating lining epithelium of a skin tag. [H&E, 10x]****Fig. 5: Bowen's Disease: squamous epithelium shows atypia and basal cell hyperplasia. [H&E, 10x]****Fig. 6: Confluent and Reticulated Papillomatosis (A) Scaly brown macules and patches.****Fig. 7: (B) Epidermis shows hyperkeratosis, papillomatosis and focal acanthosis. [H&E, 10x]**

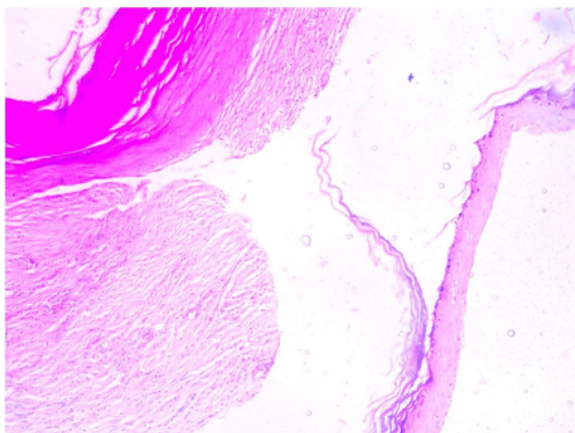


Fig. 8: Keratinous cyst: Ruptured cyst containing laminated keratin. [H&E, 10x]

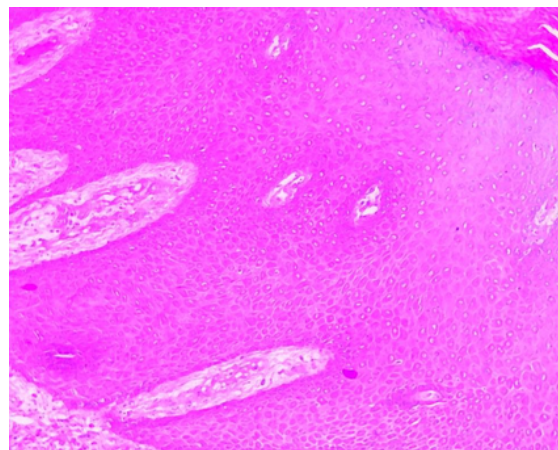


Fig. 9: Pseudoepitheliomatous hyperplasia: Prominent acanthosis of epidermis. [H&E, 10x]



Fig. 10: Nevus sebaceous: (A) Single brown coloured nodule on the scalp

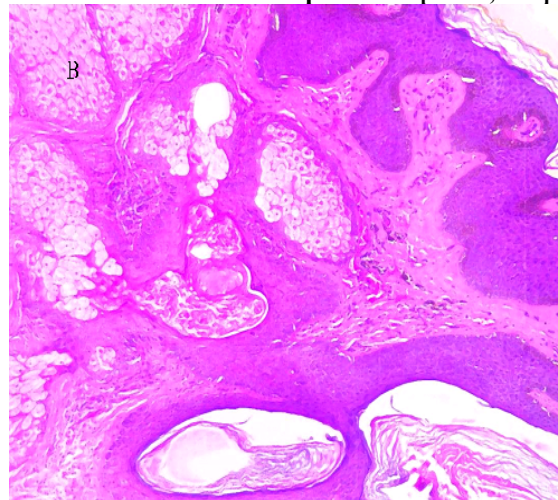


Fig. 11: (B) Increased sebaceous glands in the dermis. [H&E, 10x]

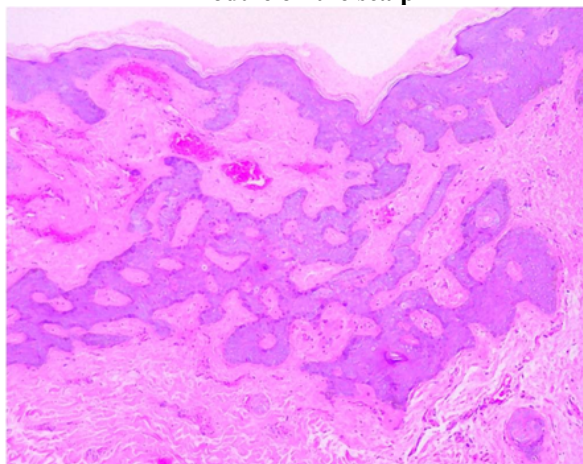


Fig. 12: Angiokeratoma: acanthosis with branching anastomosing rete. Papillary dermis shows dilated, thin walled congested capillaries. [H&E, 10x]

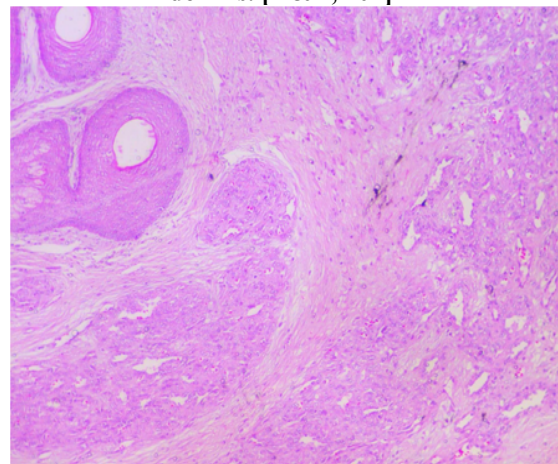


Fig. 13: Lobular capillary hemangioma: Lobules of proliferating capillaries. [H&E, 20x]

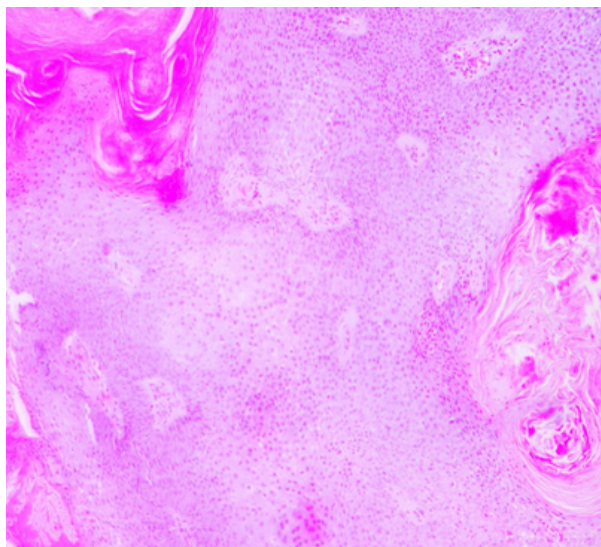


Fig. 14: Seborrheic keratosis: Proliferation of bland basaloid and squamous cells with pseudo horn cysts. [H&E, 10x]

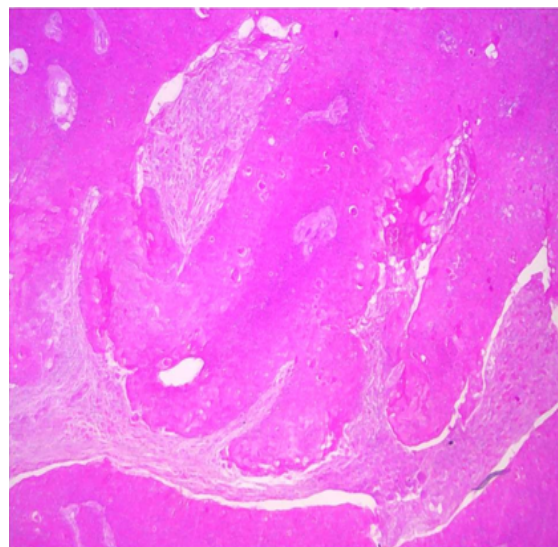


Fig. 15: Trichilemmal cyst: cyst lined by squamous epithelium lacking a granular layer, with abrupt basophilic and shadow cells. [H&E, 10x]

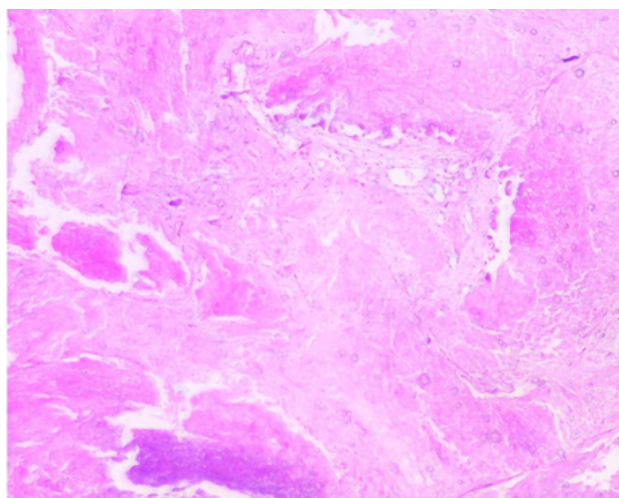


Fig. 16: Pilomatricoma: Islands of two types of cells, keratinization. [H&E, 20x]

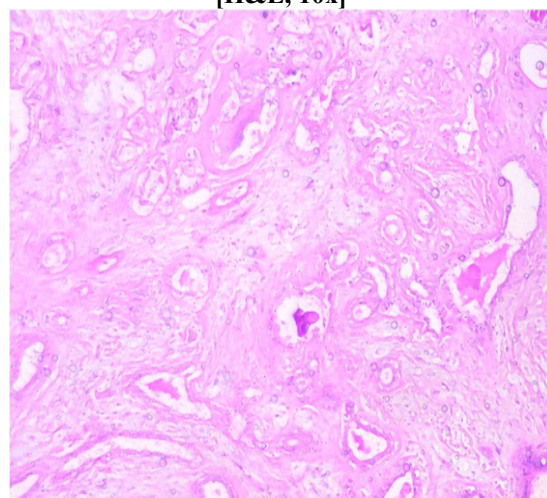


Fig. 17: Syringoma: nests, cords, and tubules of uniform epithelial cells in a dense collagenous stroma. [H&E, 10x]

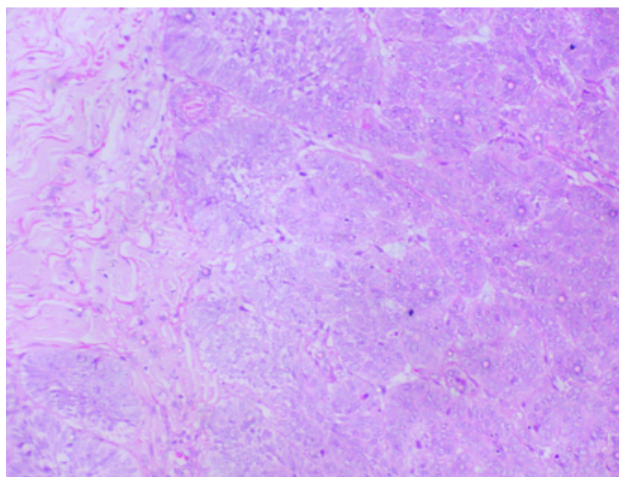


Fig. 18: Basal cell carcinoma: infiltrating islands of basaloid cells with peripheral palisade. [H&E, 20x]

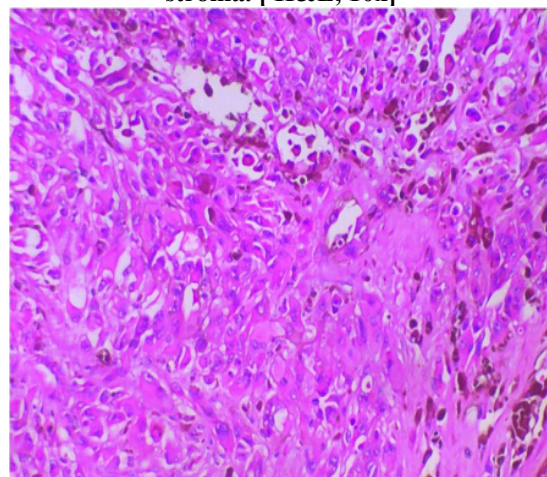


Fig. 19: Malignant melanoma: invading nests of tumour cells with high N:C ratio, intercellular & intracellular melanin pigment. [H&E, 20X]

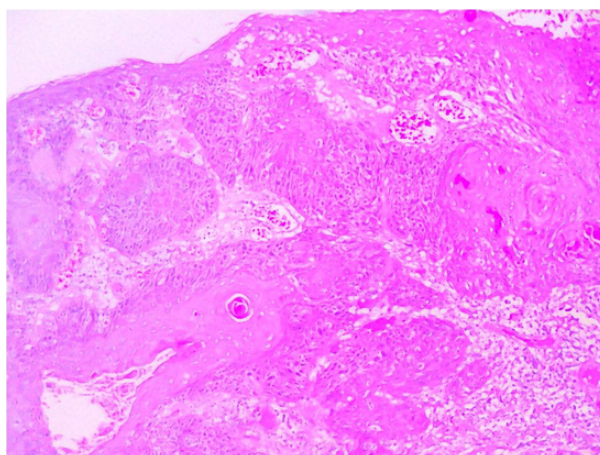


Fig. 20: Squamous cell carcinoma: nests of neoplastic squamous cells and keratin pearls. [H&E, 10x]

Discussion

- Tumours and tumour- like lesions of skin constitute a wide spectrum, affecting all ages and both sexes.
- Skin adnexal tumours(SATs) present a diverse group, depending on their pattern of differentiation.
- Most SATs are benign. However, appropriate diagnosis based on histopathology may have important implications, including being mirrors for internal malignancies.
- Although malignant skin tumours are rare, they tend to be aggressive, with a poor clinical outcome.
- Tumour- like lesions were more common in our study in contrast to a study done by Raffindadi et al.
- In our study, epidermoid cyst was the commonest tumour- like lesion.
- The incidence of benign (68.75%) and malignant (31.25%) tumours in our study was comparable to that reported by Vaibhav Bari et al.
- Syringoma and pilomatricoma were the common benign neoplasms, with two cases each. Three cases of melanoma were reported, making them the commonest malignant tumours of skin

Table 2: Comparative Incidence of Tumour- Like Lesions

Studies	Tumours	Tumour-like Lesions
Raffindadi et al.	317 (90.8%)	32 (9.2%)
Present study	16 (32%)	34 (68%)

Table 3: Comparative incidence of benign and tumours

Studies	Benign Tumours	Malignant Tumours
Raffindadi et al.	253 (72.50%)	64 (18.30%)
Vaibhav Bari et al.	10 (66.67%)	5 (33.33%)
Shivanand Gundalli et al.	29 (82.85%)	6 (17.15%)
Present study	11 (68.75%)	5 (31.25%)

Conclusion

- In our study, incidence of tumour- like lesions were more compared to tumours.
- Most of the malignant tumours occurred in older age group.
- However, benign tumours showed a wide age variation.
- Head and neck region was the most common site for skin tumours, although no site was exempt.
- Tumours and tumour- like lesions of skin have similar clinical presentations, making histopathologic examination mandatory for appropriate diagnosis and management.

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