



Histopathological Study of Skin Lesions in a Tertiary Care Hospital: A Descriptive Cross-Sectional Study

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KEYWORDS

Seborrheic keratosis,
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ABSTRACT:

Introduction: The skin, the largest organ of the integumentary system, acts as a protective barrier and is prone to various diseases due to constant exposure to external stimuli. Skin disorders affect all age groups and both sexes, with presentations ranging from mild rashes to malignant tumors (Dayal S *et al* ²). The pattern of skin diseases varies with environmental, genetic, occupational, and nutritional factors (Sheela L *et al* ³). Some systemic illnesses also manifest initially through the skin (Grover S *et al* ⁴).

Material and methods: A histopathological study was conducted in the Department of Pathology, UPUMS, Saifai, from July 2021 to March 2022. Sixty-seven skin biopsy specimens were analyzed. Clinical data were collected, and tissues were stained with hematoxylin and eosin, with special stains used as needed.

Results: Among the 67 cases, females (56.72%) were more commonly affected, with most cases in the 20–40-year age group. Non-neoplastic lesions (80.95%) were more common than neoplastic ones (11.94%), while 7.46% were inconclusive. Psoriasis (22.22%) was the most common non-neoplastic lesion. Nevus sebaceous and basal cell carcinoma (25% each) were the most frequent benign and malignant neoplastic lesions. Extremities (49.25%) were the most affected site, and 46.27% of patients reported a duration of illness between 3–6 months.

Conclusion: We concluded that the basal cell carcinoma was the most common skin cancer, aligning with global patterns.

Introduction: skin is very important and largest organ of our integumentary system. It is our first line of defence and exposed to various type of stimuli. Integumentary system is consisting of skin along with adnexal glands, hairs and nails. Skin act like a barrier against various injurious agents present I external environment. because of this reason skin is more prone for different type of diseases.

Skin diseases show wide range of age distribution from neonate to old age. Skin diseases are common in both male and female. Patient present with variety of clinical sign and symptoms from mild itching, rashes to large tumour masses which can be fatal (Dayal S *et al* ²). The

pattern of skin diseases depends on many factors like environment, occupation, genetics, nutrition etc (Sheela L *et al* ³). Some systemic diseases show skin involvement as a presenting feature (Grover S *et al* ⁴).

Material and methods: histopathological study of skin lesions was conducted in department of pathology UPUMS, Saifai, Etawah. The period of study was July 2021 to march 2022. Total 67 cases were studied. Data related to clinical history, provisional diagnosis and investigations was noted. Histopathological examination was done to confirm the diagnosis. Skin tissue were formalin fixed and then sections were



stained with haematoxylin and eosin using standard procedure along with special stain if required.

Results: in our study total 67 cases were included. Skin lesions are more common in female (56.72%) and the most of the cases were seen in 20–40-year age group. Non neoplastic lesions (80.95%) are more common than neoplastic lesions (11.94). five cases (7.46%) were inconclusive.

Table1: distribution of skin lesions according to sex

sex	No. of cases	%
Male	29	43.28
Female	38	56.72

Basal cell carcinoma (25%), nevus sebaceous(25%) and psoriasis(22.22%) were most common neoplastic and non neoplastic lesions respectively. Incidence was equal for benign (nevus sebaceous) and malignant(basal cell carcinoma) lesions that is 25% for each entity.

Table 2: distribution of non- neoplastic lesions on histopathology

Histopathological diagnosis	No. of cases	%
Psoriasis	12	22.22
LP	3	5.55
LSC	2	3.70
LP PIGM	2	3.70
Contact dermatitis	5	9.26
Vitiligo	6	11.11
Eczema	7	12.96
Pemphigus	2	3.70
Cut. TB	4	7.41
Dermatophytosis	2	3.70
Leprosy	9	16.66

Table 3: distribution of neoplastic lesions on histopathology

Histopathological diagnosis	No. of cases	%
Seborrheic keratosis	1	12.5
Melanocytic nevi	1	12.5
Nevus sebaceous	2	25
Trichilemmoma	1	12.5
BCC	2	25
Malignant melanoma	1	12.5

If we saw the site of lesion involvement we found that extremities (49.25%) followed by trunk(35.82%) were most common site.

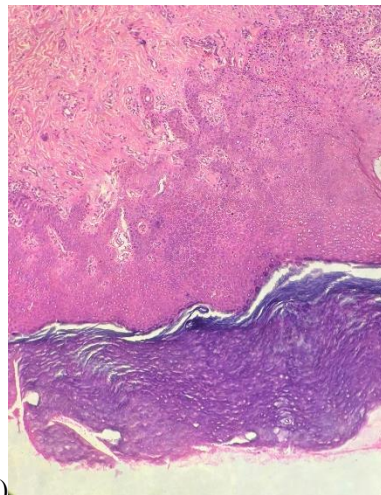
Table 4:Site of involvement by different skin lesions

Site of involvement	No. of cases	%
Scalp	3	4.47
Face	4	5.97
Neck	3	4.47
Trunk	24	35.82
Extremities	33	49.25

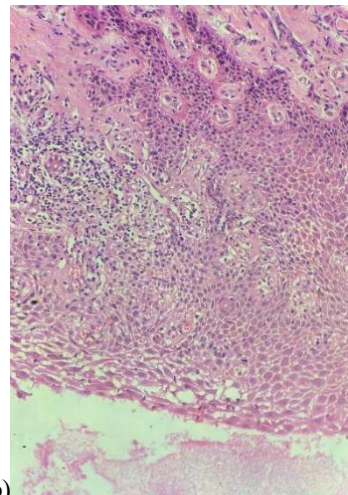
We have also investigate about the duration of illness and found 46.27% cases showed duration of illness is around 3-6 months.

Table 5: Duration of illness in different skin lesions

Duration of illness	No. of cases	%
< 3 months	27	40.29
3-6 months	31	46.27
>6 months	09	13.43



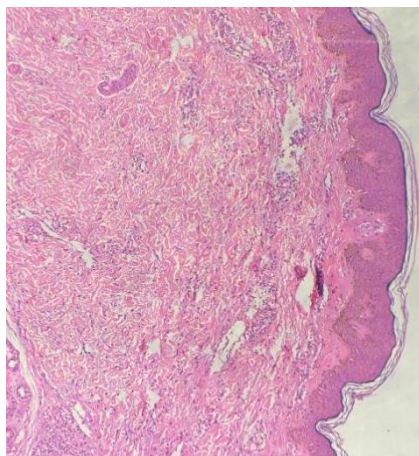
1(a)



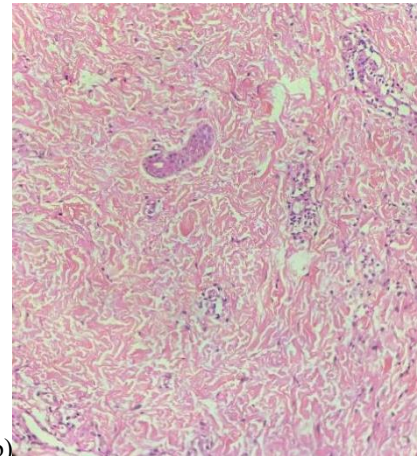
1(b)

Fig 1(a) – Hematoxylin and Eosin stained skin biopsy tissue Of Eczema(10x)

Fig 1(b) – Hematoxylin and Eosin stained skin biopsy tissue Of Eczema(40x)



2(a)



2(b)

Fig 2(a) – Hematoxylin and Eosin stained skin biopsy tissue Of Scleroderma(10x)

Fig 2(b) – Hematoxylin and Eosin stained skin biopsy tissue Of Scleroderma (40x)

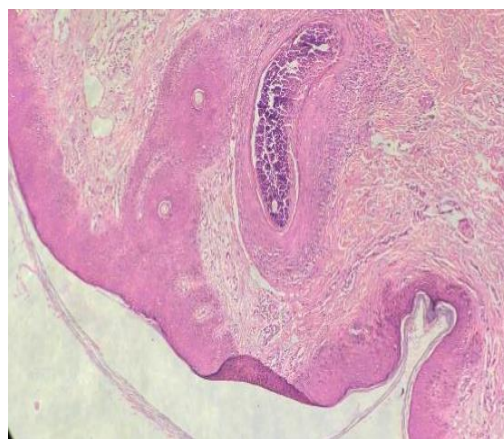


Fig 3 – Hematoxylin and Eosin stained skin biopsy tissue of Folliculitis(10x)

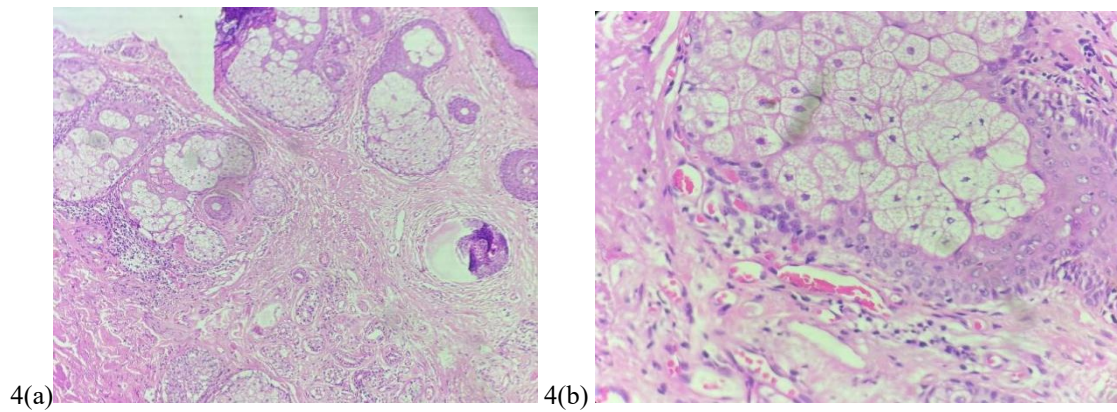


Fig 4(a) – Hematoxylin and Eosin stained skin biopsy tissue Of Sebaceous carcinoma(10x)

Fig 4(b) – Hematoxylin and Eosin stained skin biopsy tissue Of Sebaceous carcinoma (40x)

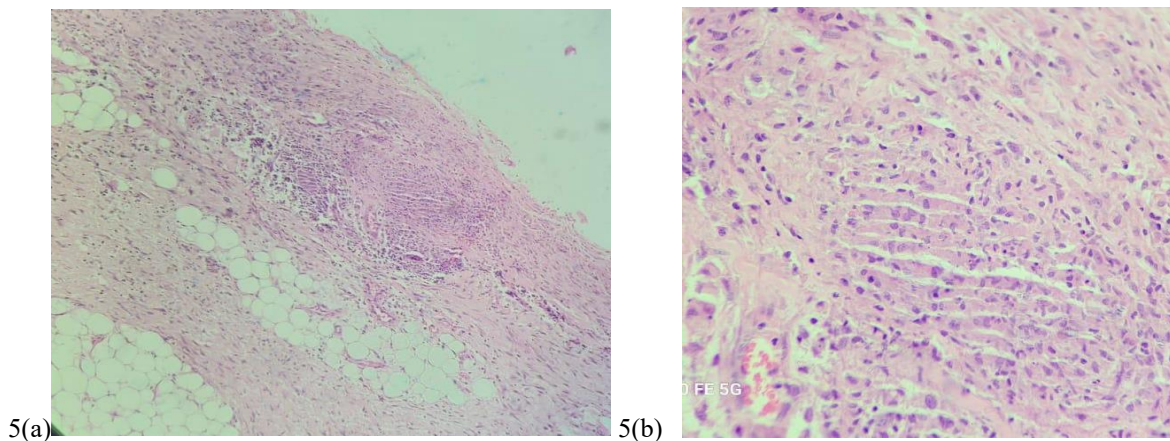


Fig 5(a) Hematoxylin and Eosin Stained skin biopsy tissue of tuberculoid leprosy(10x)

Fig 5(b) Hematoxylin and Eosin Stained skin biopsy tissue of Tuberculoid leprosy(40x)

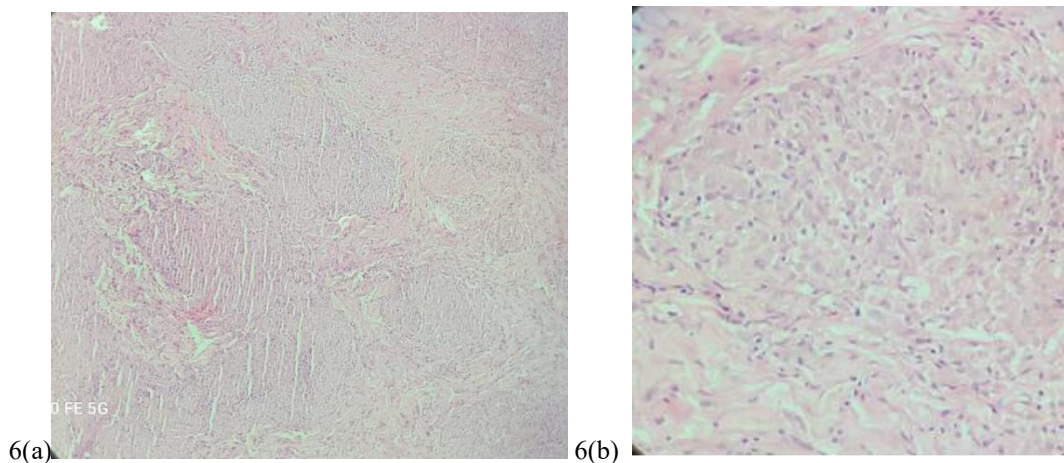


Fig 6(a) Hematoxylin and Eosin Stained skin biopsy tissue of lepromatous leprosy(10x)

Fig 6(b) Hematoxylin and Eosin Stained skin biopsy tissue of lepromatous leprosy(40x)



Discussion: we found female predominance in skin lesion (56.72%), which was in contrast to the findings of Rao G *et al* ¹, Dayal S *et al* ², Sheela L *et al* ³ and Grover S *et al* ⁴ where they found male predominance.

In our study most of the cases presented between the age group of 20 to 40 years (46.26%) which was comparable to the study done by Abubakar SD *et al* ⁵ (34.22%).

In respect to the site involvement extremities are the most common site for skin lesions in our study while scalp was the most common site involved shown by studies done by Sheela L *et al* ³—and Sau P *et al* ¹².

In Our study nonneoplastic cases are more common (80.59%) than neoplastic cases (11.94) and 7.46% cases are inconclusive on histopathology. Which is similar to the studies done by Das *et al* ⁶, Devi *et al* ⁷, Symvoulakis EK *et al* ⁸. On the contrary Abubakar SD *et al* ⁵ and Sheela L *et al* ³ showed higher frequency of neoplastic skin lesion.

During study period different non neoplastic diseases were diagnosed in which Psoriasis is most common (22.22%) disease, next to this Leprosy came that is 16.66%. In contrast to our study *Abdulkader M et al* ⁹ study showed only (5.1%) and 0.1% respectively for Psoriasis and Leprosy.

Other non neoplastic diseases frequency pattern is like LP (5.55%), LSC (3.70%), Contact dermatitis (9.26%), [Pemphigus (3.70%). *Abdulkader M et al* ⁹ study showed nearly similar results for LP (3.7%), LSC (1.2%), Contact dermatitis (10%) and in contrast for Pemphigus frequency was 0.9%.

In our study frequency of benign tumour was 12.5% for Seborrheic keratosis, for melanocytic nevi and trichilemmoma 18.3% and 2.5% for nevus sebaceous. Albasri study showed similar results melanocytic nevi (11.8%) while showed different results for Seborrheic keratosis (5.9%), Trichilemmoma (18.3%) and nevus sebaceous (0.3%)

In case of malignant tumour of skin our study showed more common tumour is BCC (25%) and then MM 12.5%. whereas study of Albasri *et al* also show most common tumour of skin is BCC (61.4%) and for malignant melanoma frequency is 3.7%. in contrast to

Brand D *et al* ¹¹, Sheela L *et al* ³, Abubakar SD *et al* ⁵ studies.

Conclusion: we conclude that BCC is the most common type of skin cancer in our study followed by MM like other studies but SCC is also a most frequent skin cancer showed by many studies of other countries.

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