



HISTOPATHOLOGICAL SPECTRUM OF SKIN LESIONS- A HOSPITAL BASED STUDY

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ABSTRACT Skin diseases encompass a wide array of pathologic processes. The aim of this study is to identify this wide range of skin disorders. It is a hospital-based retrospective study conducted in the department of Pathology, Assam Medical College and Hospital, Dibrugarh for a period of one year from April 2016 to March 2017. Total 113 cases were processed and stained with Hematoxylin and Eosin and reviewed by pathologists. Age ranged from 1 to 85 years. There were 55 (48.67%) males and 58 (51.33%) females. Commonest site was eyelid. 21 cases (18.58%) were non-neoplastic and 92 (81.42%) neoplastic. Non-specific inflammatory and chronic granulomatous lesions were the predominant non-neoplastic lesions. Among neoplastic disorders, 69 cases (61.06%) were benign and 23 (20.35%) malignant. The predominant benign and malignant lesions were epidermal cyst and squamous cell carcinoma respectively. Thus a huge diversity of skin disorders was noticeable.

KEYWORDS : skin, Hematoxylin and Eosin, non-neoplastic, neoplastic

INTRODUCTION

The skin or integument is a complex organ with many functions and with three main anatomic components: epidermis and skin adnexa, melanocytic system, and dermis and subcutis [1, 2, 3, 4]. It is the largest in the body—in which precisely regulated cellular and molecular interactions govern many crucial responses to our environment.

Skin conditions are very common. There are literally thousands of specific skin diseases. Imbalances in factors affecting the delicate homeostasis that exists among skin cells may result in conditions as diverse as wrinkles and hair loss, blisters and rashes, and life-threatening cancers and disorders of immune regulation. Non-neoplastic or inflammatory skin diseases encompass a wide array of pathologic processes ranging from autoimmune to infectious to diseases of unknown etiology.

Though the spectrum of histopathology of skin disorders is varied, clinical presentation is restricted to only a few changes such as hyperpigmentation, hypopigmentation, macules, papules, nodules etc. Each clinical presentation is common to different histopathological pictures and thus definitely requires histopathology for their confirmation.

The aim of this study is to identify the various skin lesions prevalent in this part of the country, their frequency, age and site of distribution.

MATERIALS AND METHODS

This is a hospital-based retrospective study conducted for a period of 1 year from April 2016 to March 2017 in the department of pathology, Assam Medical College and Hospital, Dibrugarh. A total of 113 specimens were processed, sectioned and stained with Hematoxylin and Eosin stain and reviewed by pathologists. Relevant data like age, sex and site were obtained from the requisition forms provided with the specimens.

RESULTS

Total 113 skin lesion specimens were included in the study. Patients' age ranged from 1 year to 85 years.

Maximum number of patients was from age group 21 to 30 years. There were 55 male (48.67%) and 58 female (51.33%) patients. The most common site involved was eyelid with 26 cases (23.01%) followed by lip 16 cases (14.16%) and back 12 cases (10.62%). Out of 113 cases, 21 (18.58%) cases were non-neoplastic and 92 (81.42%) were neoplastic.

Among the non-neoplastic lesions, non-specific inflammatory and chronic granulomatous lesions were the most common with 5 cases (4.42%) each. This was followed by bullous pemphigoid, 4 cases (3.54%). Among the neoplastic lesions, 69 cases (61.06%) were benign and 23 (20.35%) were malignant. Epidermal cyst was the

commonest benign lesion with 30 cases (26.55%) followed by capillary hemangioma 11 cases (9.73%) and sebaceous cyst 8 cases (7.08%). The predominant site of epidermal cyst was eyelid. The incidence was found to be equal in male and female. Majority occurred in the 21-30 years age group. The commonest malignant lesion was squamous cell carcinoma with 13 cases (11.5%) followed by basal cell carcinoma 5 cases (4.42%) and malignant melanoma 3 cases (2.65%). There was 1 case of verrucous carcinoma which is a low grade squamous cell carcinoma. Squamous cell carcinoma was found to be prevalent more among females. Majority of them involved the lips. Highest number of cases occurred in the 51-60 years age group.

Table 1: DISTRIBUTION OF CASES ACCORDING TO AGE

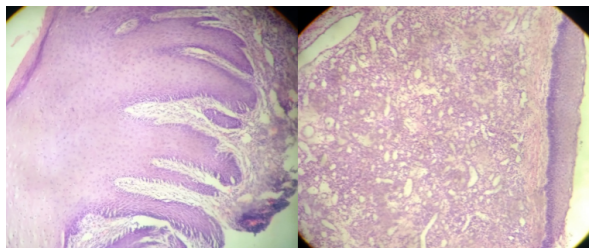
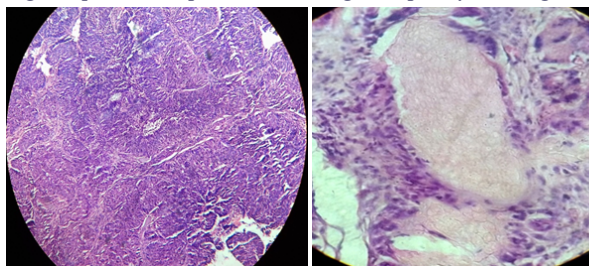
SERIAL NO.	AGE GROUP IN YEARS	NO. OF CASES	PERCENTAGE (%)
1	<10	8	7.08
2	11-20	14	12.4
3	21-30	26	23.01
4	31-40	9	7.96
5	41-50	22	19.47
6	51-60	15	13.27
7	61-70	11	9.73
8	71-80	7	6.19
9	81-90	1	0.88
	TOTAL	113	100

Table 2: DISTRIBUTION OF CASES ACCORDING TO SITE

SERIAL NO.	SITE	NO. OF CASES	PERCENTAGE (%)
1	SCALP	11	9.73
2	FACE	7	6.19
3	EYELID	26	23.01
4	LIP	16	14.16
5	NECK	5	4.42
6	CHEST	7	6.19
7	ABDOMINAL WALL	6	5.31
8	BACK	12	10.62
9	FOREARM	2	1.77
10	ARM	5	4.42
11	THIGH	1	0.88
12	LEG	6	5.31
13	FOOT	2	1.77
14	TOE	3	2.65
15	SCROTUM	1	0.88
16	AXILLA	1	0.88
17	BUTTOCK	1	0.88
18	ANAL SKIN	1	0.88
	TOTAL	113	100

Table 3: HISTOPATHOLOGICAL SPECTRUM OF SKIN LESIONS

LESION	NO. OF CASES	PERCENTAGE (%)
NON-NEOPLASTIC		
NON-SPECIFIC INFLAMMATORY	5	4.42
PEMPHIGUS VULGARIS	2	1.77
MUCOCELE	1	0.88
CHRONIC DERMATITIS	1	0.88
CHRONIC GRANULOMATOUS	5	4.42
BULLOUS PEMPFIGOID	4	3.54
HYPERTROPHIC SCAR	2	1.77
MOLLUSCUM CONTAGIOSUM	1	0.88
NEOPLASTIC		
BENIGN		
EPIDERMAL CYST	30	26.55
SEBACEOUS CYST	8	7.08
JUNCTIONAL NEVUS	5	4.42
COMPOUND NEVUS	2	1.77
INTRADERMAL NEVUS	5	4.42
CAPILLARY HEMANGIOMA	11	9.73
TRICHOEPITHELIOMA	1	0.88
PILOMATRICOMA	1	0.88
BENIGN SQUAMOUS KERATOSIS	1	0.88
SQUAMOUS PAPILLOMA	2	1.77
INVERTED PAPILLOMA	1	0.88
TRICHILEMMOMA	1	0.88
PSEUDOEPITHELIOMATOUS HYPERPLASIA	1	0.88
MALIGNANT		
SQUAMOUS CELL CARCINOMA	13	11.5
BASAL CELL CARCINOMA	5	4.42
MALIGNANT MELANOMA	3	2.65
SEBACEOUS CARCINOMA	1	0.88
ADENOCARCINOMA	1	0.88
TOTAL	113	100

**Fig.1- Squamous Papilloma****Fig.2- Capillary Hemangioma****Fig.3- Squamous Cell Carcinoma Fig.4- Pilomatricoma**

DISCUSSION

In our study, a female predominance of the skin lesions was seen. It is in contrast to findings of Dayal and Gupta (1977), Grover et al. (2008) and Rao and Kumar (2003) where they noticed male predominance.

The age group, 21-30 years presented the highest frequency of skin pathology with 23.01% which is comparable to the study conducted by Abubakar et al. (2016).

Neoplastic lesions were the major entity in our study which is consistent with the findings of Abubakar et al. (2016). Among the benign neoplastic lesions, epidermal cyst (30 cases) was the most common, which is consistent with the observations made by Dr. Sheela L Gaikwad et al. (2016). Sau et al. (1995) analysed 96 cases of epidermal cyst noting that 90% of cases were in the scalp. This

contradicted with our findings where only 2 (1.77%) occurred in the scalp. Majority were present in eyelid. Abubakar et al. also reported only 3 cases (13%) in the scalp.

Among the malignant lesions, squamous cell carcinoma was predominant which is comparable to the findings of Abubakar et al., Brand and Ackerman (2000), Wassberg et al. (2001) and Dr. Sheela L Gaikwad et al. A study in Nigeria has shown that squamous cell carcinoma accounts for 32.7% of all malignant skin lesions (Ganiyu et al., 2015).

CONCLUSION

A huge diversity in skin lesions was noticed in our study ranging from non-specific inflammatory lesions to malignant conditions. Neoplastic lesions were the major entity with epidermal cyst being the predominant one. Squamous cell carcinoma was the major malignant lesion. Though less in number, non-neoplastic lesions were also noticeable. Histopathology was helpful in making a diagnosis of these diverse skin disorders. This emphasizes the indispensable role of histopathological examination to enable correct diagnosis and prompt treatment of these lesions.

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