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Histopathological Spectrum of Non Neoplastic Lesions of Skin

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Abstract- *The histopathological spectrum of skin disorder is varied whereas clinical presentation is restricted to only a few changes such as hyperpigmentation,hypopigmentation,macules,papules and nodules.[(1)]Accurate diagnosis is important for different skin disorders presenting with similar type of lesions[(1).]For the purpose of diagnosis and planning of treatment ,skin punch biopsy is the standard primary procedure.Histopathological examination plays a significant role and it is the gold standard in arriving diagnosis.[(2)]*

Key Words*: Non-neoplstic skin lesions,Histopathological study,skin punch biopsy.*

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I. Introduction

Dermatological disorders are common in all countries but the pattern of lesions varies greatly. Skin diseases are influenced by various factors like environment, economy, literacy, racial and social customs [(1)]. Majority of skin lesions are diagnosed on the basis of clinical presentation & history. It is important that the clinical differential diagnosis be correlated with the gross and microscopic observations in order to render a histopathological diagnosis. Each clinical presentation is common to different histopathological pictures and thus definitely require histopathology for their confirmation. Separation of each of these becomes important because the treatment and prognosis tends to be disease specific.With growing awareness and improvement in medical facilities a varied spectrum of diseases are diagnosed histopathologically.

II. Aims And Objectives

To evaluate varied spectrum of non-neoplastic lesions of skin. To determine the incidence, age and sex distribution and histopathology of non - neoplastic lesions of skin.

III. Materials & Methods

This is a prospective study conducted in the department of pathology in a tertiary care teaching hospital received in between July 2017 and June 2019.A total number of 238 samples were received during the study period .Formalin fixed skin punch biopsy specimens were processed routinely and multiple sections each measuring 3-5 micron thickness were obtained and stained with Hematoxylin and Eosin. Patients' history such as age, sex and other relevant clinical details such as site of lesion & character were noted as provided by dermatologist.

Inclusion Criteria: All biopsies that showed definite signs of any specific pathology were included.
Exclusion Criteria: All skin biopsies from neoplastic lesions and inadequate samples were excluded

IV. Results

Non neoplastic skin lesions were most common in the age group of 41-49 yrs followed by 31-39 yrs.Males are the most common with a male to female ratio of 3:2.2 . The most common lesions diagnosed were Hansens disease(26 cases)-16% followed by bullous lesions(17 cases)-11.1%

Table -1 HISTOPATHOLOGICAL DIAGNOSIS

Clinical diagnosis	Histopathological diagnosis	Number of cases	Percentage of cases
Hansens disease	Hansens disease	26	16.8%
Bullous lesions	Bullous lesions	17	11.1%
Lichenoid lesions	Lichenoid lesions	13	8.4%
Lupus vulgaris	Lupus vulgaris	3	1.9%

Leprosy	Morphea	3	1.9%
Granuloma annulare	Granuloma annulare	2	1.2%
Viral wart	Molluscum contagiosum	1	0.6%
Prurigo nodularis	Prurigo nodularis	1	0.6%
Palpable purpura	Vasculitis	1	0.6%
Psoriasis	Psoriasis	1	0.6%

The most common infectious inflammatory dermatose is bacterial(27 cases)-75% followed by viral(8 cases)-22% .

TABLE - 2:HISTOPATHOLOGICAL SPECTRUM OF INFECTIOUS INFLAMMATORY DERMATOSES

Type	Male	Female	Total	Percentage
Bacterial	15	12	27	75%
Viral	4	4	8	22%
Fungal	1	0	1	3%
Total	20	16	36	100

The most common bacterial dermatoses is leprosy(25 cases)-96.1% followed by cutaneous tuberculosis(1 case)-3.9%.

V. Discussion

A total number of 238 samples were analysed during the study period. Histopathological diagnosis was arrived in 154 cases.Histopathological Diagnosis was concordant with clinical diagnosis in (88 cases)-55.2%, discordant in (70 cases)-44.8%. Diagnosis was inconclusive in (80 cases)-33.6 %.

TABLE-3:THE HISTOPATHOLOGICAL SPECTRUM OF DIFFERENT NON- NEOPLASTIC SKIN LESIONS IN VARIOUS STUDIES [4].

	Present study	Kumar et al[4]	Veldurthy et al[1]	Neetu et al[2]
Total cases	238	232	92	270
period	2 years	1 year	3 years	5 years
Most common age	41-50	21-30	31-40	41-50
Male/Female	3:2.2	3:2	3:2	2.3:2
Hansen's disease(%)	16.8%	30.6%	23.9%	20.7%
Vesicobullous lesion	11.1%	12.5%	-	3%
Lichen planus	8%	8%	15%	3%
psoriasis	0.6%	2%	1.5%	1.8%

In a total number of 238 cases the most common age group involved is 41-50 yrs concordant with studies done by Neetu Goyal et al[2] .There was a male preponderance with a male to female ratio of 3:2.2 in skin lesions similar to the study done by Kumar et al [6].In the present study Hansens disease(16.8%) followed by vesiculobullous lesions (11.1%) is the most common concordant with studies done by Kumar et al[4]In the present study the histopathological diagnosis was concordant with clinical diagnosis in 37% cases . In studies done by Sabir et al [7] the concordance was seen in 90% cases and Gupta et al[8] the concordance was 70% cases..

VI. Conclusion

Histopathological study of skin biopsies helps to make an early and accurate clinically useful diagnosis .Skin punch biopsy is the basic technique for obtaining the full thickness skin specimen. It is important to perform the skin biopsy at appropriate phase of the disease, from proper site,of proper thickness .The evaluation of these changes are best made by taking a punch biopsy of clinically normal skin nearby, which represents the best possible control .Hansen's disease is still most common skin disease followed by vesiculobullous lesions.

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