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Study of histopathology of papulosquamous lesion of skin a prospective and retrospective study

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Abstract

Introduction: The frequency of occurrence of erythematous, papulosquamous diseases is high. Histopathology is highly specific and sensitive for many lesions and it remains the gold standard for most dermatological diagnosis.

Methods: Retrospective and prospective histopathological study of 78 cases was carried out in the Department of Pathology, Dr. S. N. Medical College, Jodhpur over a period of 3 years from June 2012 to June 2015.

Results: In the present study of 78 cases of papulosquamous disorders, Psoriasis (40 cases) was the commonest followed by Lichen planus (25 cases), Pityriasis Rubra Pilaris (6 cases), Parapsoriasis (4 cases), Pityriasis Rosea, Lichen striatus & Seborrheic dermatitis have (1 case) each. There was no case found on Lichen Nitidus in the present study.

Conclusion: It is concluded from this study that Psoriasis was the commonest papulosquamous lesion followed by lichen planus.

Keywords: papulosquamous lesion, clinical features, microscopic features

1. Introduction

As for any other organ system, diagnosis of skin disease involves history and examination. The visibility of skin allows an instant diagnosis in some cases, using a variety of visual clues such as site distribution, color, scaling and arrangement of lesions. Such apparently effortless pattern recognition is actually quite complex when the individual components are analyzed separately [1]. The frequency of occurrence of erythematous, papulosquamous diseases is high. It is feasible to consider them in a group because all of them are characterized by similar morphological characteristics. Therefore histopathological reporting should be accompanied with detailed clinical history as many of the lesions share similar histopathological features while clinically they present as different entities [2]. Histopathology is highly specific and sensitive for many lesions and it remains the gold standard for most dermatological diagnosis [3].

2. Material and Methods

The present study is a retrospective and prospective study done to evaluate the role of histopathology in the diagnosis of the papulosquamous lesion of skin and its correlation with the clinical signs and symptom. The study includes all the biopsies, specimens and the relevant information received at The Department of Pathology, Dr. S. N. Medical College, Jodhpur from the period Jun 2012 to Jun 2015 (1 years of retrospective and 2 years of prospective study). All the specimen is preserved in 10% buffered formalin. The tissue is then processed and 4-5mm thick sections are prepared from paraffin embedded blocks. These are then stained with Hematoxylin and Eosin stain and are visualized under light microscope.

2.1 Inclusion criteria

Cases with clinical features suggestive of papulosquamous skin disorders like Psoriasis, Lichen Planus, Pityriasis Rubra Pilaris, Parapsoriasis, Pityriasis Rosea, Lichen Nitidus, Lichen Striatus and Seborrheic Dermatitis were included.

2.2 Exclusion criteria

Diseases with similar clinical features like lupus erythematosus, dry forms of eczema, some superficial varieties of fungal diseases were excluded.

3. Result

A study of 78 cases with a clinical diagnosis of papulosquamous skin disorders was undertaken. Psoriasis was the commonest papulosquamous lesion in the present study followed by lichen planus.

Table 1: Distribution of Cases – Papulosquamous Skin Diseases

Disease	No. of cases	Percentage
Psoriasis	40	51.28
Lichen Planus	25	32.05
Pityriasis rubra Pilaris	6	7.69
Parapsoriasis	4	5.13
Pityriasis Rosea	1	1.28
Lichen Striatus	1	1.28
Lichen Nitidus	0	0.00
Seborrheic dermatitis	1	1.28
Total	78	100.00

In the present study of 78 cases of papulosquamous disorders, Psoriasis 40 cases (51.28%) was the commonest followed by Lichen planus 25 cases (32.05%), Pityriasis Rubra Pilaris 6

cases (7.69%), Parapsoriasis 4 cases (5.31%), Pityriasis Rosea, Lichen striatus & Seborrheic dermatitis were 1 case each (1.28%). There was no case found on Lichen Nitidus.

Table 2: Age Incidence

Age Group (in yrs)	Lichen planus	Psoriasis	Pityriasis rubra pilaris	Parapsoriasis	Pityriasis rosea	Lichen striatus	Lichen nitidus	Seborrheic dermatitis
0-10	0	1	1	0	0	0	0	0
11-20	8	2	3	0	1	1	0	1
21-30	6	10	2	0	0	0	0	0
31-40	5	9	0	0	0	0	0	0
41-50	4	9	0	1	0	0	0	0
51-60	2	4	0	1	0	0	0	0
>60	0	5	0	2	0	0	0	0
Total	25	40	6	4	1	1	0	1

Psoriasis was seen commonly in middle aged. Lichen planus occurred in all age groups but was commonly seen in young and middle aged. Pityriasis Rubra Pilaris, Pityriasis Rosea,

Lichen striatus and Seborrheic dermatitis was commonly seen in young age group. Parapsoriasis were seen in old age group.

Table 3: Sex Incidence

Disease	Male		Female		Total no. of cases
	No. of cases	Percentage	No. of cases	Percentage	
Lichen Planus	12	48.00	13	52	25
Psoriasis	28	70	12	30	40
Pityriasis Rubra Pilaris	4	66.67	2	33.33	6
Parapsoriasis	3	75	1	25	4
Pityriasis Rosea	1	100	0	0	1
Lichen Striatus	0	0	1	100	1
Lichen Nitidus	0	0	0	0	0
Seborrheic dermatitis	1	100	0	0	1
Total	49	62.82	29	37.18	78

In the present study high prevalence was observed in males for all diseases except for lichen planus. However, only one case of Lichen striatus was observed which a female patient was

can usually be made from the characteristic clinical appearance and distribution of the lesion [5]. However Lichen Planus must be differentiated from other papulosquamous disorders such as Psoriasis and others [6]. Hence confirmation with a skin biopsy is always warranted [7] to exclude few other papulosquamous disorders like Psoriasis and Parapsoriasis from Lichen Planus as depicted in our study. Of 40 cases of Psoriasis, 23 were clinically diagnosed and confirmed by histopathology. The clinical presentation of Psoriasis is varied, and mimicked other papulosquamous diseases as encountered in our study [7]. Hence many times the definitive diagnosis depends on histological examination [8]. 23 out of 78 cases had 2 or more clinical differential diagnosis. Histologically we were able to diagnose these lesions. This

4. Discussion and Conclusions

In the present study of 78 cases of papulosquamous disorders, Psoriasis (51.28%) was the commonest followed by Lichen planus (32.05%). In the study done by B. Rajashekhar Reddy *et al.* (2014) [4]. 80 cases of papulosquamous disorders were studied in which Psoriasis (42.5%) the commonest was followed by Lichen planus (30%). In the present study out of 25 cases of Lichen Planus, 17 were clinically diagnosed and confirmed by histopathology. The diagnosis of Lichen Planus

account for 30% of total cases which need histopathological study to get a more definitive diagnosis. In the study done by Ahmad Faraz *et al.* (2015) [9] 67.5% of clinically diagnosed cases of papulosquamous lesion were confirmed histologically while 32.5% were histologically different diagnosis. In the study done by Choudhary Raju *et al.* (2015) [10] 68.7% of clinically diagnosed cases of papulosquamous lesion were confirmed histologically while 31.3% were histologically different diagnosis. In the present study 57% of clinically diagnosed cases of papulosquamous lesion were confirmed histologically while 43% were histologically different diagnosis. There is overlap of both clinical pattern and distribution of papulosquamous skin disorders, which often makes clinical diagnosis difficult. Some of the histological features overlap in lesions like pityriasis rosea, parapsoriasis and lichen striatus. However some of the histological features are specific and characteristic for each entity.

Hence combination of proper clinical observation and histomorphological study will give a conclusive diagnosis

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