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CODEN: IJBABN **Original Research Article**

Study of non- infectious papulosquamous lesions of the skin in a tertiary care hospital- two year study

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Abstract

Background: The papulosquamous skin disorders are a heterogenous group of disorders, showing overlap in morphology and distribution of lesions that leads to difficulty in diagnosis. Hence the present study was undertaken to record the frequency and to study pattern of clinical and histopathological features of papulosquamous lesions of skin with clinicopathological correlation.
Method: Total 125 cases clinically diagnosed as papulosquamous lesions of the skin, before starting the treatment and on attending the outdoor skin department were enrolled and studied in the Department of Pathology at Tertiary care hospital, Mumbai over a period of 2 years from June 2015 to May 2017.
Results: Papulosquamous lesions of the skin constituted 14.74% of the total number of skin biopsies. Majority of patients were in the age group of 21–30 years (26.4%) with male preponderance (62.4%). Histopathologically, lichen planus was the most common lesion (54.4%) followed by psoriatic lesions (24.8%), pityriasisrubrapilaris (5.6%) and parapsoriasis (3.2%). Clinicopathological correlation was positive in 87.2% cases and negative in 12.8% cases.
Conclusion: Histopathology serves as a diagnostic tool and rules out other lesions which mimic papulosquamous disorders. Histological features of some disorders (psoriasis and lichen planus) are quite diagnostic, while few disorders (lichen striatus and pityriasis rosea) may show some overlap. In these circumstances an attempt at clinicohistopathological correlation serves as an ideal approach. Thus, distinct histopathological features and clinicohistopathological correlation gives a conclusive diagnosis.
Keywords: Papulosquamous lesions; Histopathology; Clinicopathological correlation; Lichen planus; Psoriasis.

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1. Introduction

Papulosquamous diseases are a heterogenous group of disorders whose etiology primarily is unknown. These disorders comprise a group of dermatoses that have distinct morphologic features. The characteristic primary lesion of these disorders is a papule, usually erythematous, that has a variable amount of scaling on the surface. Some common papulosquamous dermatoses are psoriasis, pityriasisrosea, lichen planus, pityriasisrubrapilaris and parapsoriasis. Drug eruptions, tinea corporis, and secondary syphilis may also have papulosquamous morphology [1].

However, the papulosquamous lesions are complex to diagnose as they are difficult to identify and may resemble a similar disorder of the group. Also the skin has a limited number of reaction patterns with which it can respond to various pathological stimuli: clinically different lesions may show similar histological patterns. Hence these lesions are commonly misdiagnosed. Therefore, to obtain the precise diagnosis of the skin biopsy, it should be accompanied by all clinical details [2, 3].

David Elder has considered histopathology as a "gold standard" for the diagnosis of most dermatological conditions including psoriasis. In clinical practice, diagnostic dilemma and exclusion of life-threatening malignancies constitute the commonest reasons for seeking histopathological evaluation. Clinical features when considered alone may not be reliable, as they vary with both disease duration and treatment. On the contrary, histological material constitutes definite evidence, which can be preserved and will continue to be available for future review, if necessary. However, at times, histopathology cannot resolve the issue and the picture is more typically compatible with rather than 'diagnostic of' a clinical diagnosis. This situation precludes effective clinical decision making and management of the patient. In these circumstances an attempt at clinicohistopathological correlation should serve as an ideal approach [4]. Thus, the present study was carried out to record the frequency, and to study pattern of clinical and histopathological features of papulosquamous lesions of the skin with clinicopathological correlation.

2. Materials and Method

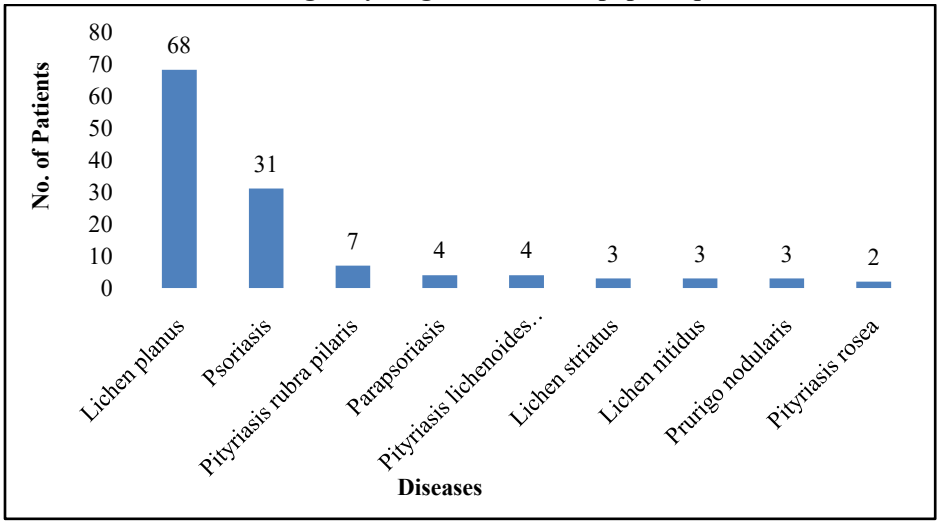
This was a prospective study carried out in the Department of Pathology at Tertiary care hospital Mumbai over a period of 2 years from June 2015 to May 2017. Total 125 cases clinically diagnosed as papulosquamous lesions of the skin, before starting the treatment and attending the outdoor skin department were included in the study. Papulosquamous lesions with infective etiology liketineacorporis, syphilis etc and papulosquamous lesions of allergic origin like contact dermatitis, allergic dermatitis, drug induced rash, etc. were excluded. Detailed clinical history, thorough physical examination, associated symptomatology were recorded in the proformaprepared for the purpose.

Gross photographs were taken of the lesions and then the biopsy was taken after receiving the consent. Before proceeding the biopsy, xylocaine sensitivity test was done by injecting 0.5ml of xylocaine subcutaneously. The lesion was selected for biopsy and the skin surface was cleaned with a spirit swab. Local anaesthesia was best obtained by infiltration of 2% lignocaine solution with adrenaline under the lesion. Punch biopsy was done to obtain an adequate amount of tissue for diagnosis of the most skin lesions. Biopsy specimen was kept in 10% formalin for 24 hours for fixation. After fixation, the specimens were processed in an automatic tissue processor. After processing, the paraffin blocks were made and cut on a rotary microtome into 5 microns thick sections. Sections were stained with Hematoxylin & Eosin stains. Whenever required, serial and deeper sections were studied. Sections were examined by conventional light microscopy. Detailed microscopic examination was undertaken for histopathological diagnosis of papulosquamous disorders of the skin. Histopathological findings were interpreted in light of clinical details. The observations were noted according to frequency, clinical features, histopathological pattern and clinicopathological correlation of papulosquamous lesions of the skin. The data obtained was tabulated and analyzed by rates, ratios and percentages.

3. Observation and Results

Papulosquamous lesions of the skin constituted 14.74% of the total number (848) of skin biopsies and 1.13% of total number (11042) of surgical pathologies at our institute. The lichen planus was the commonest lesion encountered (68; 54.4%), followed by psoriasis 31(24.8%) as depicted in figure 1.

Figure 1: Distribution of histologically diagnosed cases of papulosquamous lesions of the skin



Majority of cases (26.4%) had age between 21 to 30 years followed by 31 to 40 (21.6%), 41-50 (16%), 11-20 (12.8%), 61-70 (11.2%), 51-60 (7.2%) and 0-10 (4.8%) years with male predominance (78; 62.4%) as shown in table 1.

Table 1: Demographic dataof cases with papulosquamous disorders of the skin

Clinical features		LP	PSO	PRP	PPSO	PLC	LS	LN	PN	PR
Age group (years)	0-10	2	2	1	0	0	1	0	0	0
	11-20	6	6	1	0	1	0	1	0	1
	21-30	21	4	0	1	1	2	2	1	1
	31-40	11	11	3	1	0	0	0	1	0
	41-50	13	3	1	1	2	0	0	0	0
	51-60	7	1	0	1	0	0	0	0	0
	61-70	8	4	1	0	0	0	0	1	0
	Mean age	36.83	36.90	35.57	40.25	34.25	20.66	21.00	41.66	21
Sex	Male	42	21	05	02	01	02	02	01	02
	Female	26	10	02	02	03	01	01	02	00
	Ratio (M:F)	1.6:1	2.1:1	2.5:1	1:1	1:3	2:1	2:1	1:2	-

Flat topped violaceous papule (55; 80.88%) was the commonest type of lesion in lichen planus, scaly plaque 26(83.87%) in psoriasis, most cases presented with scaly follicular papules (7; 100%) in PRP, Scaly patch/macule were commonest clinical eruptions in PPSO (3; 75%), multiple, tiny papular lesions (4; 100%) in PLC, in LS most cases presented with flat topped scaly papules (3; 100%), in LN all three (100%) cases presented with flesh coloured, shiny papules and in one case with thin scales, also in PN all 3(100%) cases presented with pruritic erythematous papule. In PR, both cases presented with multiple round to oval erythematous plaques with thin scales, (Table 2).

Table 2: Clinical pattern of papulosquamous lesions of skin

Papulosquamous lesions	FTPa	FTPl	Papule	SP	FP	VN/P	SP/M	TS	PEP
LP	55	18	13	7	3	5	00	00	0
PSO	0	0	13	26	0	2	6	2	0
PRP	0	0	5	0	7	0	1	4	0
PPSO	0	0	2	2	0	0	3	2	0
PLC	0	0	4	0	0	0	0	1	0
LS	3	0	0	0	0	0	0	2	0
LN	0	0	3	0	0	0	0	1	0
PN	0	0	0	0	0	1	0	1	3
PR	0	0	2	0	0	0	0	2	0

[Flat topped papule-FTPa; Flat topped plaque-FTPl; Scaly plaque-SP; Follicular papule-FP; Verrucousnodule/plaque – VN/P; Scaly patches/ macule-SP/M; Thin scales-TS; Pruritic erythematous papule-PEP]

Histopathological examination of 68 cases of lichen planus showed vacuolar alteration of basal layer and band like lymphocytic infiltration in upper dermis in maximum cases (100%), also psoriasis revealed that parakeratosis and lymphocytic infiltration in upper dermis in all cases,. Histopathological examination of the cases of PRP showed alternating orthokeratosis and parakeratosis in both vertical and horizontal directions, hypergranulosis, irregular acanthosis in the form of short and broad rete ridges, thick suprapapillary plates, sparse to moderate lymphocytic perivascular infiltrate in the dermis and dilated hair follicles filled with a dense, horny plug. However, parapsoriasis mostly revealed focal parakeratosis, hyperkeratosis and acanthosis in most of the cases while dermal perivascular inflammation was seen in all the cases. In PLC vacuolar degeneration of basal layer (100%) and necrotic keratinocyte (100%) was the comment histopathological pattern. Most cases of LS showed focal parakeratosis, focal spongiosis with exocytosis of lymphocytes, periadnexal and perivascular lymphocytic infiltration whereas most cases of LN showed elongated rete ridges, epidermal flattening and granuloma in upper dermis containing lymphocytes, epithelioid cells and multinucleate giant cells. All 3 cases of PN revealed that hyperkeratosis, irregular acanthosis, pseudoepitheliomatous hyperplasia and dermal lymphocytic infiltrate. Both the cases of pityriasisrosea revealed focal parakeratosis, spongiosis, hyperkeratosis, acanthosis, exocytosis of lymphocytes. Dermal changes seen were inflammatory infiltrate in papillary and RBCs in papillary dermis, (Table 3).

Table 3: Histopathological pattern of papulosquamous lesions of skin

Histological features	LP	PSO	PRP	PPSO	PLC	LS	LN	PN	PR
Hyperkeratosis	62	5	-	3	2	2	-	3	2
Focal parakeratosis	5	31	-	3	2	3	1	-	2
Hypergranulosis	64	-	6	-	-	-	-	-	-
Irregular acanthosis with saw toothed rete ridges	58	-	-	-	-	-	-	3	2
Marked acanthosis	20	-	-	-	-	-	-	-	-
Epidermal atrophy	3	-	-	-	-	-	-	-	-
Follicular plugging	3	-	6	-	-	-	-	-	-
Vacuolar alteration of basal layer	68	-	-	-	4	-	2	-	-
Civatte bodies	7	-	-	-	-	-	-	-	-
Band like infiltrate	68	-	-	-	-	2	-	-	-
Melanin incontinence	50	-	-	-	-	-	-	-	-
Spongiosis	18	27	3	2	2	-	-	-	2
Max Joseph space	4	-	-	-	-	-	-	-	-
Acanthosis	-	29	7	3	-	-	-	-	-
Munro microabscesses	-	24	-	-	-	-	-	-	-
Elongated rete ridges	-	27	-	-	-	-	3	-	-
Suprapapillary thinning	-	28	-	-	-	-	-	-	-
Hypogranulosis	-	26	-	-	-	-	-	-	-
Kogoj pustules	-	3	-	-	-	-	-	-	-
Dilated capillaries	-	29	-	-	-	-	-	-	-
Lymphocytic infiltration in dermis	-	31	6	-	3	3		3	
Alternating orthokeratosis and parakeratosis in both vertical and horizontal directions	-	-	5	-	-	-	-	-	-
Thick suprapapillary plates	-	-	2	-	-	-	-	-	-
Exocytosis of lymphocytes	-	-	-	2	2	-	-	-	-
Perivascular inflammation	-	-	-	4	-	-	-	-	-
Necrotic keratinocytes	-	-	-	-	4	-	-	-	-
Extravasation of RBCs in dermis	-	-	-	-	3	-	-	-	-
Melanophages in dermis	-	-	-	-	1	1	-	-	-
Perivascular lymphocytic infiltrate	-	-	-	-	-	3	2	-	-
Focal spongiosis with exocytosis of lymphocytes	-	-	-	-	-	3	-	-	2
Epidermal flattening	-	-	-	-	-	-	3	-	-
Granuloma in upper dermis containing lymphocytes, epithelioid cells and multinucleate giant cells	-	-	-	-	-	-	3	-	-
Pseudoepitheliomatous hyperplasia	-	-	-	-	-	-	-	3	-
Vertically oriented collagen bundles	-	-	-	-	-	-	-	2	-
Dermal vascular and neural hyperplasia	-	-	-	-	-	-	-	1	
Inflammatory infiltrate in papillary dermis	-	-	-	-	-	-	-	-	2
RBCs in papillary dermis	-	-	-	-	-	-	-	-	1

[PSO- Psoriasis, LP- lichen planus, PPSO- parapsoriasis LS- lichen striatus, LN- lichen nitidus, PR- Pityriasisrosea, PRP- Pityriasisrubrapilaris, PLC- Pityriasislichenoides chronica, PN-Prurigo nodularis.]

Table 4 show the clinicopathological correlation of papulosquamous lesions of skin. An analysis of the clinical diagnosis with the histopathological diagnosis of papulosquamous lesions of the skin, revealed a positive correlation in 109 (87.2%) cases and a negative correlation in 16 (12.8%) cases.The various lesions with classical, clinical and histopathological features were seen as given in figure 2 and figure 3.

Table 4: Clinicopathological correlation of papulosquamous lesions of skin

Clinical diagnosis (n=125)	Histopathological diagnosis n=125									
	LP (68)	PSO (31)	PRP (7)	PPS (4)	PLC (4)	LS (3)	LN (3)	PN (3)	PR (2)	Total
LP (60)	**57**	2	0	0	0	1	0	0	0	**60**
PSO (36)	5	**29**	2	0	0	0	0	0	0	**36**
PRP (5)	0	0	**5**	0	0	0	0	0	0	**5**
PPSO (4)	0	0	0	**4**	0	0	0	0	0	**4**
PLC (4)	0	0	0	0	**4**	0	0	0	0	**4**
LS (4)	2	0	0	0	0	**2**	0	0	0	**4**
LN (3)	0	0	0	0	0	0	**3**	0	0	**3**
PN (7)	4	0	0	0	0	0	0	**3**	0	**7**
PR (2)	0	0	0	0	0	0	0	0	**2**	**2**
Total	**68**	**31**	**7**	**4**	**4**	**3**	**3**	**3**	**2**	**125**

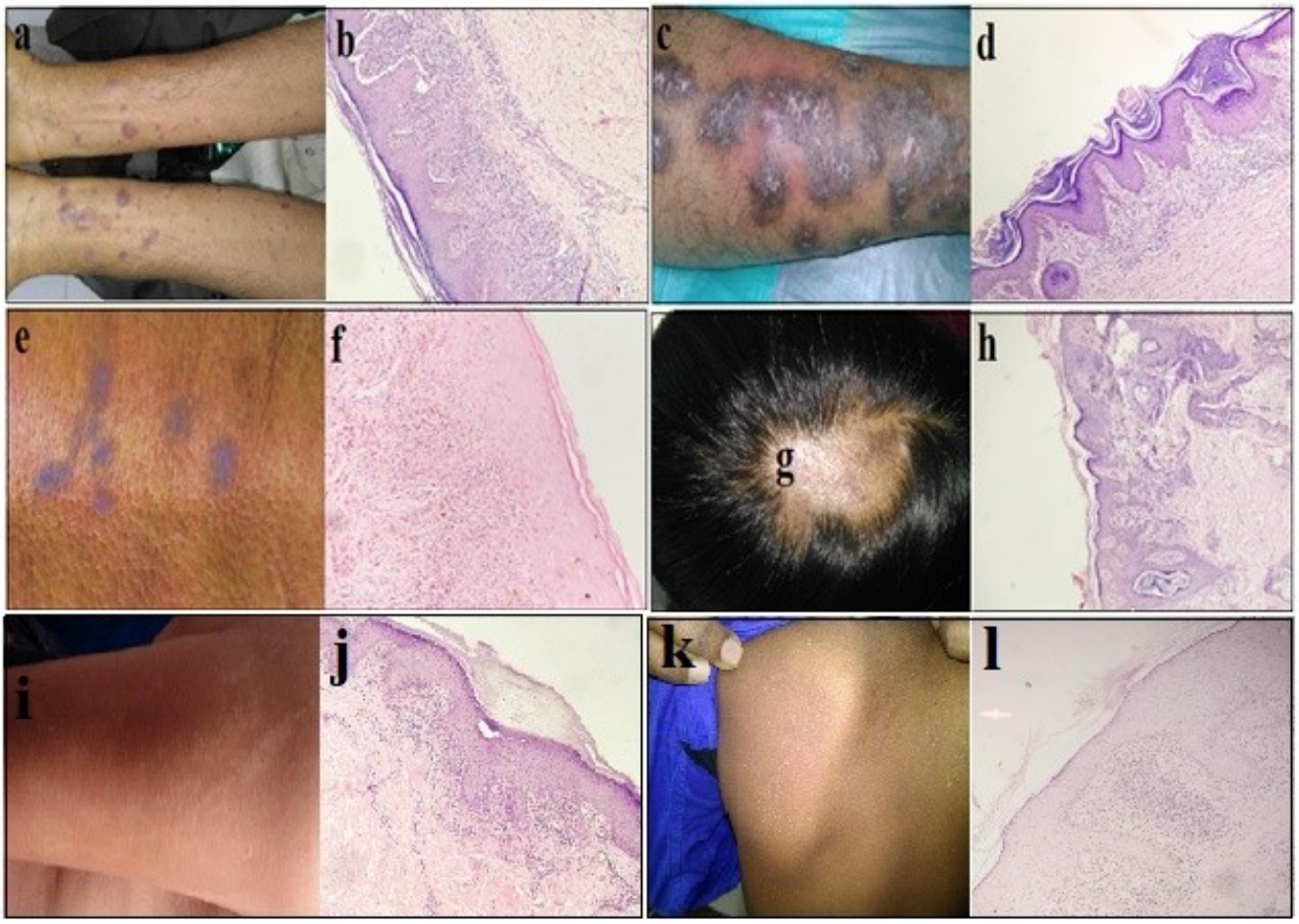


Figure 2:

a) LICHEN PLANUS: Shows flat topped, polygonal, violaceous papules on upper limb;
b) LICHEN PLANUS (10X, HE): Epidermis shows hyperkeratosis, focal parakeratosis, focal hypergranulosis, irregular acanthosis, saw toothed rete ridges and vacuolar alteration of basal layer. Dermis shows band like infiltrate of lymphocytes;
c) HYPERTROPHIC LICHEN PLANUS: shows thickened and verrucous plaques on lower limb;
d) HYPERTROPHIC LICHEN PLANUS (10X, HE): Epidermis shows marked hyperkeratosis, hypergranulosis and marked irregular acanthosis. Dermis shows band like infiltrate of lymphocytes touching the under surface of epidermis;
e) LICHEN PLANUS PIGMENTOSUS: Shows hyperpigmented purple macules and patches over trunk;
f) LICHEN PLANUS PIGMENTOSUS (40X, HE): Epidermis shows hyperkeratosis and vacuolar alteration of basal layer. Dermis shows marked melanin incontinence and band like infiltrate of lymphocytes;
g) LICHEN PLANO PILARIS: Shows violaceous papules over scalp;
h) LICHEN PLANO PILARIS (4X, HE): Epidermis shows orthokeratosis, vacuolar alteration of basal layer and follicular plugging. Dermis shows focally dense perifollicular lymphocytic infiltrate;
i) LICHEN STRIATUS: Shows linear, flat topped papules over upper limb;
j) LICHEN STRIATUS (4X, HE): Epidermis shows hyperkeratosis, focal parakeratosis, acanthosis, spongiosis and exocytosis of lymphocytes. Dermis shows mild perivascular lymphocytic infiltrate;
k) LICHEN NITIDUS: Shows multiple, flesh coloured, shiny papules over trunk; **l) LICHEN NITIDUS (10X, HE):** Epidermis shows vacuolar alteration of basal layer, elongated rete ridges and focal parakeratosis over granuloma. Dermis shows granuloma in upper dermis containing lymphocytes, epithelioid cells and perivascular lymphocytic infiltration.

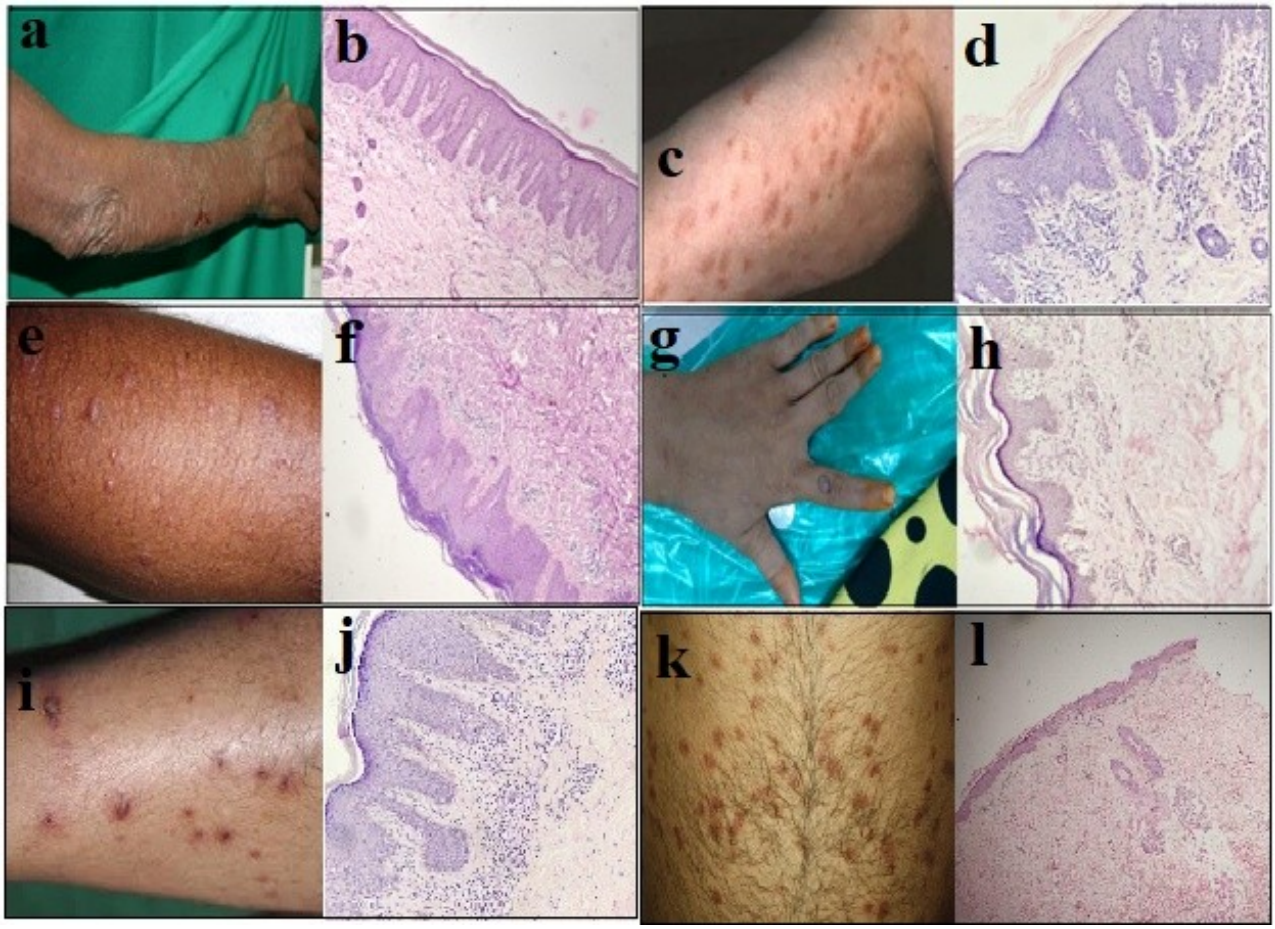


Figure 3:

a) PSORIASIS: Shows plaques of variable size with fine silvery scales over upper limb;
b) PSORIASIS (10X, HE): Epidermis shows hyperkeratosis, parakeratosis, acanthosis, and elongation of rete ridges with bulbous thickening. Also seen elongation and edema of dermal papillae;
c) PARAPSORIASIS: Shows round to oval scaly macules and papules over upper limb;
d) PARAPSORIASIS (20X, HE): Epidermis shows parakeratosis, acanthosis, spongiosis and exocytosis of lymphocytes. Dermis shows mild superficial perivascular lymphocytic infiltrate;
e) PITYRIASIS RUBRA PILARIS: Shows small follicular papules over upper limbs;
f) PITYRIASIS RUBRA PILARIS (10X, HE): Epidermis shows focal alternating orthokeratosisand parakeratosis, acanthosis, short and broad rete ridges and spongiosis. Dermis shows perivascular lymphocytic infiltrate;
g) PITYRIASIS LICHENOIDES CHRONICA: Shows multiple tiny papular lesions over dorsum of hand;
h) PITYRIASIS LICHENOIDES CHRONICA (10X, HE): Epidermis shows hyperkeratosis, spongiosis and vacuolar alteration of basal layer. Dermis shows lymphocytic cell infiltrate and extravasation of RBC's;
i) PRURIGO NODULARIS: Shows multiple, erythematous papules over lower limb;
j) PRURIGO NODULARIS (20X, HE): Epidermis shows hyperkeratosis, irregular acanthosis and pseudoepitheliomatous hyperplasia. Dermis shows lymphocytic infiltrate and vertically oriented collagen bundles;
k) PITYRIASIS ROSEA: Shows multiple round to oval erythematous plaques over trunk;
l) PITYRIASIS ROSEA (4X, HE): Epidermis shows hyperkeratosis, focal parakeratosis, focalspongiosis with exocytosis of lymphocytes. Dermis shows perivascular lymphocytic infiltrate and focally extravasated RBC's

4. Discussion

In the present study, papulosquamous lesions of the skin constituted 1.13% of the total surgical pathology load and 14.74% of the total number of skin biopsies. Lichen planus was the commonest lesion noted in 54.4% cases, followed by psoriasis (24.8%) which is similar to D'Costa *et al* study [3]. The maximum numbers of cases were in the age group of 21-30 years followed by 31-40 years. Various studies [5, 6] also noted peak incidence in 3rd and 4th decade of life.

Out of 68 cases of LP, maximum numbers of cases (30.88%) were noted in the age group of 21-30 years with male preponderance. Flat topped violaceous papule (80.88%) with itching (66.17%) was the commonest clinical presentation and lower limb (33.82%) was the most frequent site of involvement. These findings are in accordance with other studies [6-8]. Histopathological examination showed vacuolar alteration of basal layer and band like lymphocytic infiltration in upper dermis in all cases, followed by hypergranulosis 64(94.11%),

hyperkeratosis 62(91.18%), irregular acanthosis with saw toothed rete ridges 58 (85.3 %), melanin incontinence 50(73.53%), marked acanthosis 20 (29.41%), spongiosis 18 (26.5%), Civatte bodies 7(10.3%), focal parakeratosis 5(7.35%), Max Joseph space 4(5.88%), follicular plugging 3(4.41%) and epidermal atrophy 3 (4.41%). Out of 68, 38(55.88%) cases were of classical type, hypertrophic lichen planus 9 (13.23%) cases, lichen planopilaris 3 (4.41%) cases and lichen planuspigmentosus 18 (26.47%) cases. Among 68 cases, 57 (83.82%) were clinicohistologically concordant while remaining 11(16.17%) cases had other clinical diagnosis, 5 cases of psoriasis, 4 cases of prurigonodularis and two cases of lichen striatus.Our findings are correlated with previous studies [7, 9].

In psoriasis, male preponderance was noted and maximum number of cases 11(35.5%) were encountered in 4th decade of life. Scaly plaque 26(83.87%) was the commonest clinical presentation and Upper limbs 16 (51.6%) were the most frequent site of involvementwhich is in accordance with Meier *et al* [10] and Sinniah *et al* [11]. Most of the cases presented with Itching 24(77.41%), Auspitz's sign 18(58.06%) and Koebner phenomenon 3(9.6%). Histopathological examination of 31 cases of psoriasis revealed that parakeratosis and lymphocytic infiltration in upper dermis in all cases, followed by acanthosis 29(93.5%), dilated capillaries in papillary dermis 29 (93.5 %), suprapapillary thinning 28 (90.32%), spongiosis 27(87.1%), elongated rete ridges 27 (87.1%), hypogranulosis 26(83.87%), Munro microabscesses 24 (77.41 %), and hyperkeratosis 5 (16.1%). Kogoj pustules were noted only in 3 (9.67 %) cases. Out of 31 cases of psoriasis, 29(93.55%) were clinicohistologically concordant, while 2 (6.45%) cases had clinical diagnosis of lichen planus. These results are correlated with the earlier studies [12, 13].

In PRP, out of 7 cases 2(28.6%) were females and 5(71.43%) were males and all the 7 cases were noted in 1st, 2nd, 4th, 5th and 7th decade of life. Most cases presented with scaly follicular papules and in most cases lesions were present on upper limbs predominantly on the elbows. Histopathological examination of the cases of pityriasisrubrapilaris showed alternating orthokeratosis and parakeratosis in vertical and horizontal directions, hypergranulosis, irregular acanthosis in the form of short and broad rete ridges, thick suprapapillary plates, sparse to moderate lymphocytic perivascular infiltrate in the dermis and dilated hair follicles filled with a dense, horny plug. Out of 7 cases, 5(71.43%) cases were clinicohistologically concordant while remaining 2 (28.57%) cases were clinically diagnosed as psoriasis. Thus, we noted that histopathology has major contribution in diagnosis of PRP, which is in accordance with the Sehgal *et al* [14] and Fung *et al* [15].

In parapsoriasis, equal incidence was noted amongst males and females. All the 4 cases of parapsoriasis were seen from 3rd and 6th decade of life. Scaly patch / macule were commonest clinical presentation and Upper limbs 3 (75%) and lower limbs 2 (50%) were the most frequent site of involvement. Histopathological examination of parapsoriasis mostly revealed focal parakeratosis, hyperkeratosis and acanthosis in most of the cases while dermal perivascular inflammation was seen in all the cases. All these cases were clinicohistologically concordant. These results are similar to the study done by D'Costa *et al* [3]Anand [16] and Wong [17].

All the 4 cases of PLC were noted in 2nd, 3rd and 5th decade of life with female preponderance. All 4 cases presented with multiple, tiny papular lesions. In two cases (50%) lesions were present on trunk and rests of the two cases (50%) lesions were present on upper limbs. Histopathological examination of PLC revealed vacuolar degeneration of basal layer (100%), necrotic keratinocyte (100%), spongiosis (75%), focal parakeratosis (50%) and exocytosis of lymphocytes (50%). Dermal changes seen were lymphocytic inflammatory infiltrate (75%), RBCs in papillary dermis (75%) and melanophages (25%). All these cases were clinicohistologically concordant. The histological findings of PLC are comparable with the other studies [3, 18].

Out of 3 cases of LS, 1(33.33 %) case was female and 2(66.66%) were males and all of these were noted in 1st and 3rd decade of life. Most cases presented with flat topped scaly papules in linear pattern involving trunk and upper limb which is in accordance with Hauber *et al* study [19].Histopathological examination showed focal parakeratosis, focal spongiosis with exocytosis of lymphocytes, periadnexal and perivascular lymphocytic infiltration. Two cases showed hyperkeratosis and focal band like lymphocytic infiltrate and one case showed melanophages in dermis. Out of 3 cases of LS, 2(66.66%) cases were clinicohistologically concordant while remaining 1(33.33%) case had clinical diagnosis of lichen planus. These findings are correlated with the earlier studies [17, 20, and 21].

Out of 3 cases of LN, 1(33.33%) case was female and 2(66.66%) were males and all were presented with flesh coloured, shiny papules and in one case with thin scales. In all three cases lesions were present on upper limb and trunk involvement in one of the case. Histopathological examination of the cases of lichen nitidus revealed elongated rete ridges (like claw clutching a ball), epidermal flattening, parakeratotic cap over granuloma and basal layer vacuolar degeneration. Dermal changes seen were

granuloma in upper dermis containing lymphocytes, epithelioid cells and multinucleate giant cells and perivascular lymphocytic infiltration. All the cases of lichen nitidus were clinicohistologically concordant. These findings arecomparable with the study conducted by D'Costa *et al* [3] and Chen *et al* [22].

All 3 cases of PN were noted in 3rd, 4th, and 7th decade of life with female preponderance and were presented with pruritic erythematous papule involving lower limb and trunk. Histopathological examination of 3 cases of prurigonodularis revealed that hyperkeratosis, irregular acanthosis, pseudoepitheliomatous hyperplasia and dermal lymphocytic infiltrate in all the cases. Two cases showed vertically oriented collagen bundles and one case showed dermal vascular and neural hyperplasia. All the cases of PN were clinicohistologically concordant. Similar results are reported in D'Costa *et al* study [3].

In two cases of PR, mean age was 21 years with male preponderance. Both cases presented with multiple erythematous round to oval plaques with thin scales on the trunk and upper limb. Herald patch was present in both the cases on trunk. Histopathological examination of both the cases of pityriasisrosea revealed focal parakeratosis, spongiosis, hyperkeratosis, acanthosis, exocytosis of lymphocytes. Dermal changes seen were inflammatory infiltrate in papillary and RBCs in papillary dermis. Various histopathological studies [23, 24] noted similar findings. Both the cases of PR were clinicohistologically concordant.

Out of 125 cases of papulosquamous lesions of the skin, we noted positive correlation in 109 (87.2%) cases i.e. 57 cases of lichen planus, 29 cases of psoriasis, 5 cases of pityriasisrubrapilaris, 4 cases of parapsoriasis, 4 cases of pityriasis lichenoides chronica, 2 cases of lichen striatus, 3 cases of lichen nitidus, 3 cases of prurigo nodularis and 2 cases of cases of Pityriasis rosea. These findings are in accordance with D'Costa *et al* study [3]. Thus histopathology confirmed diagnosis in 87.2% cases while histopathology gave diagnosis in 12.8% of the cases, thus emphasizing the importance and utility of histopathology in arriving at a conclusive diagnosis.

5. Conclusion

Papulosquamous disorders have varied clinical presentations. Besides, same patient may present with different types of lesions. Papulosquamous lesions of the skin must be differentiated from other lesions which mimic them, like infectious diseases (Tinea, syphilis, tuberculousverrucosa cutis and dermatophytosis), allergic disorders (nummular dermatitis, contact dermatitis, eczemas) and tumors (mycosis fungoides, papulonodular lesions of Kaposis sarcoma). Histopathology serves as a diagnostic tool and rules out other lesions which mimic papulosquamous disorders. Histological features of some disorders (psoriasis and lichen planus) are quite diagnostic, while few disorders (lichen striatus and pityriasisrosea) may show some overlap. At times histopathology may not resolve the issue and the picture is more typically compatible with rather than diagnostic of a clinical diagnosis. In these circumstances an attempt at clinicohistopathological correlation serves as an ideal approach. Thus, the most accurate diagnosis is the one that most closely correlates with clinical outcome and helps to direct the most appropriate clinical intervention.

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