AN OBSERVATIONAL STUDY OF DERMOSCOPIC FINDINGS IN CASES OF LICHEN PLANUS IN INDIAN SKIN

Dermatology

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ABSTRACT

INTRODUCTION: Dermoscopy is non-invasive procedure used for diagnosis of various dermatoses. As there are very few dermoscopic studies available on LP in India, this study was undertaken to explore its role.

AIM: To study dermoscopic features in LP cases.

METHOD: Dermoscopic examination was done in 65 cases of LP over the study period of 3 months at a tertiary care institute.

RESULTS: Total 155 lesions of 29 classical LP (CLP), 13 hypertrophic LP (HLP), 9 eruptive LP (ELP), 6 lichen planus pigmentosus (LPP), 4 lichen plano pilaris (LPPi), 2 linear LP (LLP), 2 follicular LP (FLP) cases were examined.

Lesions of CLP, ELP and LLP were examined in which:

Active lesions (94 lesions) - Wickham's striae (WS): commonest pattern was radial streaming (40% lesions) and Color was white (91.48% lesions). Pigment pattern (PP): absent in almost all lesions. Commonest vascular pattern (VP): radial linear in 68.08% lesions. Commonest background Color (BC): violet

Regressed lesions (20 lesions) - WS: absent in 95% lesions. Commonest PP: diffuse dots/globules (80% lesions). VP: absent. BC: brown (100% lesions)

HLP (26 lesions)-Keratin Plugs (KP) in 84.61% lesions, VP: absent.

FLP (2 lesions)-follicular KP in all lesions.

LPP (9 lesions)-Reticular & granular Pattern was seen in all lesions, commonest pigment was dark brown, different intensity of pigmentation was present in 4 lesions.

LPPI (4 lesions)-Follicular atrophy, peripilar cast and interfollicular reticular brownish pigmentation was seen in all lesions.

CONCLUSION: Dermoscopic findings of LP and its variants can be useful for diagnosis and follow up.

KEYWORDS

INTRODUCTION

Lichen planus is common dermatological disorder characterised mainly by classical violaceous flat topped pruritic papules. [1, 3] It is mainly diagnosed clinically, but there may be diagnostic dilemma. Dermoscopy can be a non invasive useful diagnostic aid in such cases. In Indian skin very few dermoscopic studies in LP are available [2].

AIMS OF THE STUDY

To study dermoscopic features in classical LP and its variants. Explore the role of dermoscopy in diagnosis of various LP cases in Indian skin.

METHOD

Study period was from 1st June to 31st August 2018. Total 155 lesions of 65 patients were examined. Male:Female ratio was 1:1.6. Patients aged between 18-60 years, who gave valid informed consent were included in study. Various types of lichen planus were included except nail LP, Palmo-Planter LP, Genital LP and Oral LP. Lesions were examined with 10x handheld nonpolarized and polarised dermoscope. Clinical and dermoscopic photographs were taken of each patient. As and when required, biopsy had been done to confirm the diagnosis.

Table 1:

Type of LP	NO. Of cases	% of total no. of cases
Classical LP (CLP)	29	44.61%
Hypertrophic LP (HLP)	13	20%
Eruptive LP (ELP)	9	13.85%
Lichen Planus Pigmentosus (LPP)	6	9.23%
Lichen Plano Pilaris (LPPI)	4	6.15%
Linear LP (LLP)	2	3.07%
Follicular LP (FLP)	2	3.07%
Total cases	65	100%

Table 2:

Type of LP	No. of lesions
Active lesions of classical + eruptive + linear LP	94
Regressed lesions of classical + eruptive + linear LP	20
Hypertrophic LP	26
Lichen Planus Pigmentosus	9

Lichen Plano Pilaris	4
Follicular LP	2
Total lesions	155

RESULT AND DISCUSSION:

Lesions of CLP, ELP and LLP were examined in which (image 1):

Active lesions (94 lesions) had Wickham's striae (WS) as predominant finding in which commonest pattern was radial streaming (40% lesions), other patterns were reticular, circular, linear with comb like bristle, perpendicular and combined. Color of WS was white in 91.48% lesions. Pigment pattern (PP) was absent in almost all lesions. Commonest vascular pattern (VP) was radial linear in 68.08% lesions, others were red dots and globules arranged in peripheral or diffusely arranged. Commonest background Color (BC) was violet, others were pink and brown.

Regressed lesions (20 lesions) had absent WS in 95% lesions. Commonest PP was diffuse dots/globules (80% lesions). VP was absent. BC was brown (100% lesions).

HLP (26 lesions) had keratin Plugs (KP) in 84.61% lesions whereas VP was absent (image 2).

FLP (2 lesions) had follicular KP in all lesions.

LPP (9 lesions) had Reticular & granular Pattern in all lesions, commonest pigment was dark brown in color, different intensity of pigmentation was present in 4 lesions (image 3).

LPPI (4 lesions) had Follicular atrophy, peripilar cast and interfollicular reticular brownish pigmentation in all lesions (image 2).

Image 1:

Image 1 is showing various pattern of wickham's striae in upper portion and vascular pattern in lower portion.

Image 2:

Image 2 showing dermoscopic images of lichen plano pilaris in left half and hypertrophic lichen planus in right half. Upper image of lichen plano pilaris: orange circle indicating white dots, maroon circle indicating peripilar cast, light blue circle indicating follicular atrophy and interfollicular brown pigmentation. Lower image of lichen plano pilaris: dark blue circle indicating interfollicular violaceous to brown pigmentation. Upper image of hypertrophic lichen planus: brown background with prominent whitish scale (dark blue circle). Lower image of hypertrophic lichen planus: keratin plug (red circle).

Image 3:

Image 3: first image showing brown pigment granules arranged in hem like pattern. Second image showing bluish grey granular pigments limited by skin surface marking. Third image showing brown and bluish grey granular pigment granules which are limited by skin surface markings.

CONCLUSION

Dermoscopic findings of LP and its variants can be useful for diagnosis and follow up. It can be helpful tool to avoid invasive procedure such as biopsy. There were some differences in dermoscopic findings in Indian skin as compare to lighter skin types[4,5].

LIMITATIONS

Smaller no. of cases were seen in our study. Also, all the variants of LP couldn't be studied in our study. Histopathological examination has not been performed in all cases.

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