ISSN : (Online): 3008-038X
Abbreviation: J Derm Cse Rep
DOI: 10.61705/jdcr.18.2.2025.112.116

Journal of Dermatological Case Reports

Follicular Lichen Planus Pigmentosus In A Blaschko Linear Pattern On Face: A Rare Case Presentation.

Dr. Mansi Mundra[1], Dr. Sayali P. Gongale[2], Dr. Mrityunjay Kumar Singh[3], Dr. Vinod Koshley[4], Dr. Akanksha Bandhade[5]

[1]PG Resident, Department of Dermatology Pt. Jawahar Lal Nehru Memorial Medical College, Raipur (492001) Chhattisgarh, India.
[2]Assistant professor, Department of Dermatology Pt. Jawahar Lal Nehru Memorial Medical College, Raipur (492001) Chhattisgarh, India
[3]Professor, Department of Dermatology Pt. Jawahar Lal Nehru Memorial Medical College, Raipur (492001) Chhattisgarh, India
[4]Associate Professor, Department of Dermatology Pt. Jawahar Lal Nehru Memorial Medical College, Raipur (492001) Chhattisgarh, India
[5]Assistant Professor, Department of Dermatology Pt. Jawahar Lal Nehru Memorial Medical College, Raipur (492001) Chhattisgarh, India.

Corresponding Author

Dr. Mansi Mundra
PG Resident, Department of Dermatology Pt. Jawahar Lal Nehru Memorial Medical College, Raipur (492001) Chhattisgarh, India

Email: mansi1121998@gmail.com

Abstract:

Lichen planus pigmentosus (LPP) is an infrequent variant of lichen planus (LP), marked by dark brown to gray macular pigmentation affecting sun-exposed regions. While typically exhibiting diffuse or reticular patterns, LPP can manifest in various forms, including the rare linear or blashkoid configuration. The description of linear or Blaschkoid-patterned LPP on the face are relatively even rarer. This report, thus, describes the case of a 37-year-old female presenting with LPP exhibiting a unilateral blashko-linear pattern across her cheek.

Keywords:

Facial pigmentation, pigmentation disorders, Blaschko lines, Lichen planus pigmentosus

Received : 30-05-2025 **Revised : 05-06-2025** **Accepted: 11-06-2025** **Published : 15-06-2025**

Introduction

Lichen Planus Pigmentosus is considered as an infrequent variant of lichen planus, but differs from latter by its chronic course, macular pigmentation involving sun-exposed regions and flexural areas without involvement of scalp, nails, mucosa and palms and soles. It is characterised by the presence of slate-gray, bluish or brown macular pigmentation with female preponderance. Lichen Planus Pigmentosus usually follows a symmetrical pattern, though rarely segmental, linear, zosteriform and blaschko-linear patterns have also been described in literature [1,2]. Lichen planus pigmentosus exhibiting a Blaschkoid distribution over face is a rare phenomenon, with one such rare case described here.

ISSN : (Online): 3008-038X
Abbreviation: J Derm Cse Rep
DOI: 10.61705/jdcr.18.2.2025.112.116

Journal of Dermatological Case Reports

CASE

A 37-year-old woman presented with asymptomatic hyperpigmented lesions over left cheek, initially few in number, progressed gradually over a time of one year to extend up to left temporal region. There was no preceding erythema or scaling. There was no history of trauma, prolonged sun-exposure or use of any topical or oral medications, chemicals and cosmetics. On clinical examination, multiple discrete dark brown macules with no colour variation were present over left zygomatic arch, left cheek extending up to left temporal region in blaschko-linear pattern as shown in Figure 1 and the blaschkoid lines have been shown in Figure 2. Mucous membranes, scalp, nails, palms and soles were unaffected.

Figure 1: Multiple discrete dark brown macules over left cheek extending upto left temporal region.

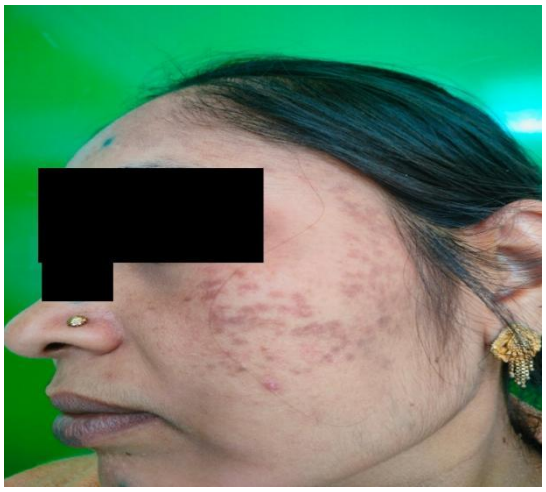

figure-1

Figure 2: Schematic diagram of lines of Blaschko on the face. Red line shows distribution of the lesions in our case.

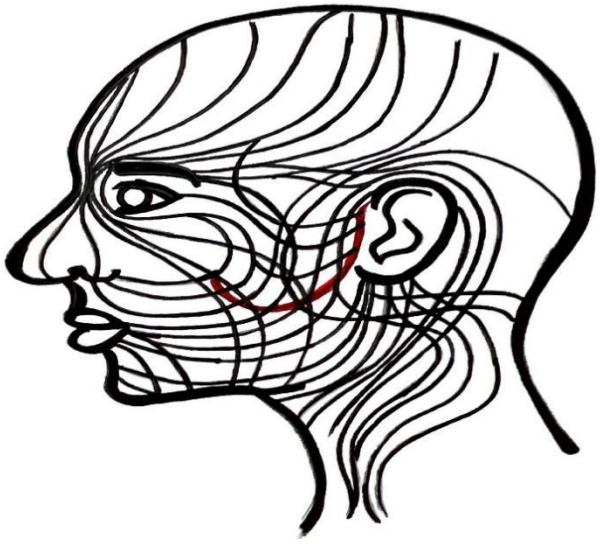

figure- 2

Systemic examination was unremarkable. Routine blood tests, biochemical profile and serology for hepatitis B and C was normal. Skin punch biopsy was performed with blaschko- linear

ISSN : (Online): 3008-038X
Abbreviation: J Derm Cse Rep
DOI: 10.61705/jdcr.18.2.2025.112.116

Journal of Dermatological Case Reports

lichen planus pigmentosus (LPP), ashy dermatosis, late onset nevus of Ota and post- inflammatory hyperpigmentation as differentials. Histopathological examination showed focal epidermal atrophy, patchy basal cell degeneration, pigment incontinence with dermal melanophages, prominent perifollicular lymphocytic infiltration and sparse perivascular inflammation as shown in Figure 3 and 4.

Figure 3: Histopathological examination showing focal epidermal atrophy, basal cell degeneration, pigment incontinence with dermal melanophages, prominent perifollicular lymphocytic infiltration (H and E, 10x).

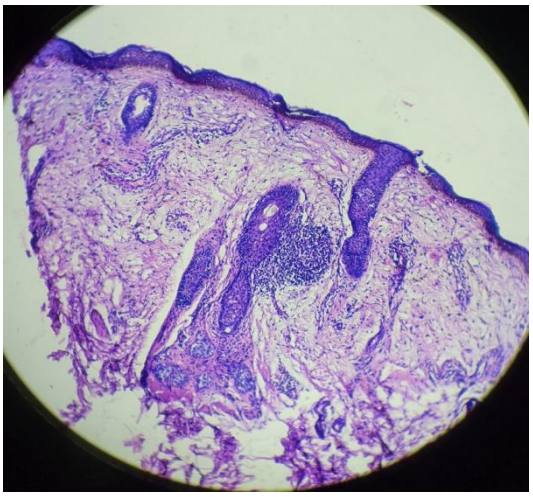

figure- 3

Figure 4: Presence of dermal melanophages (H and E, 40x).

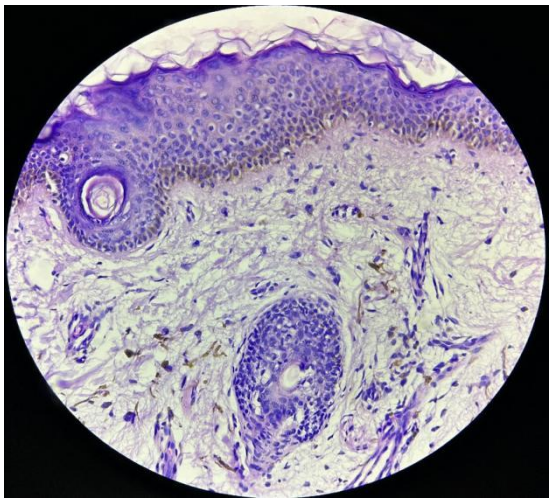

figure- 4

Thus, a diagnosis of blaschko-linear lichen planus pigmentosus was made. Patient was prescribed sunscreen, topical mometasone cream and Neodymium doped Yttrium Aluminium Garnet (Nd-YAG) laser.

ISSN : (Online): 3008-038X
Abbreviation: J Derm Cse Rep
DOI: 10.61705/jdcr.18.2.2025.112.116

Journal of Dermatological Case Reports

DISCUSSION

Lichen Planus Pigmentosus (LPP) is a distinctive variant of lichen planus that typically presents as bilateral, symmetrically distributed brown to gray or gray-blue macules, often affecting sun-exposed areas and flexural regions. It most commonly occurs in middle-aged women. The pigmentation may appear in various patterns—perifollicular, diffuse, reticulate, or blotchy—with the diffuse pattern being the most frequently observed [3].

Although uncommon, a blaschko-linear distribution of LPP has been documented in the literature. Daroch M. et al. reported the first case of follicular LPP with a blaschko-linear distribution on the right side of the abdomen in a 28-year-old man [4]. Linear lesions on the face are particularly rare, with reported cases involving the forehead and nose [5,6], and others affecting the chin and neck [1,7]. In contrast, our case involves a 37-year-old woman presenting with lesions on the left cheek.The precise etiology of LPP remains elusive, with proposed triggers including trauma, ultraviolet radiation, viral infections, and topical agents. Immunopathologically, LPP shares similarities with LP, with CD8+ T lymphocytes targeting and damaging epidermal keratinocytes causing its degeneration and resulting in pigmentary incontinence. [8]

Blaschko's lines are believed to represent the migration of T-lymphocytes and clonal expression during embryonic skin development. The linear arrangement of lesions along Blaschko's lines suggest a genetic mosaicism predisposing certain keratinocytes to aberrant immune responses. [9] Blaschko's lines on face display an hourglass-shaped pattern converging at the nasal root [10].

Although linear LPP can be challenging to diagnose clinically, histopathological examination reveals characteristic features—basal cell layer degeneration, melanin incontinence, dermal fibrosis, and a perivascular lymphohistiocytic infiltrate in the papillary dermis—which help distinguish it from other linear hyperpigmentary disorders.Treatment of LPP is usually unsatisfactory and includes topical steroids, tacrolimus, keratolytics and skin lightening agents as first line therapy. Systemic medications such as steroids, dapsone, isotretinoin and Nd-YAG laser can be used in refractory cases [11].

CONCLUSION

Linear lichen planus pigmentosus presents a unique challenge in diagnosis and management due to its rarity and distinctive clinical features especially on the face. Hence, LPP should be taken into account in the differential diagnosis of linear pigmentary disorders. A thorough understanding of its clinical presentation, histopathological findings, and differential diagnosis is essential for accurate diagnosis.

REFERENCES

1. Seo JK, Lee HJ, Lee D, Choi JH, Sung HS. A case of linear lichen planus pigmentosus. Ann dermatol. 2010;22(3):323-5.
2. Vineet R, Sumit S, Garg VK, Nita K. Lichen planus pigmentosus in linear and zosteriform pattern along with the lines of Blaschko. Dermatol Online J. 2015;21:11.
3. Kanwar AJ, Dogra S, Handa S, Parsad D, Radotra BD: A study of 124 Indian patients with lichen planus pigmentosus. Clin Exp Dermatol. 2003, 28:481-5. 10.1046/j.1365-2230.2003.01367.x
4. Daroch M, Guliani A, Keshavmurthy V, Vishwajeet V, Saikia UN, Kumaran MS. Follicular lichen planus pigmentosus in blaschkoid pattern: Superimposed segmental mosaicism. Indian J Dermatol Venereol Leprol. 2020;86:305-7.
5. Kennedy, A. M., Muhaj, F. F., Tschen, J. A., & Silapunt, S. (2021). Linear lichen planus pigmentosus of the face with histological findings of lichen planopilaris-an

ISSN : (Online): 3008-038X
Abbreviation: J Derm Cse Rep
DOI: 10.61705/jdcr.18.2.2025.112.116

Journal of Dermatological Case Reports

6. uncommon variant of lichen planus. Dermatology online journal, 27(4).
7. Sonthalia S, Das A, Sharma S. Co-localization of Linear Lichen Planus Pigmentosus and Milia in a Child. Indian J Dermatol. 2016;61:237
8. Arpa, M. G., Flores-Terry, M. Á., González-Ruiz, L., & Villasanti-Rivas, N. (2019). Linear facial lichen planus pigmentosus. Anais brasileiros de dermatologia, 94, 378-379.
9. Al-Rqobah, D. (2019). Lichen planus pigmentosus: an overview. Gulf J Dermatol Venereol, 26, 3-7.
10. the lines of Blaschko. Korean J Dermatol 2006;44:627-9
11. Droms RJ, Snadecki H, Deng A, Levin NA. Lichen planus pigmentosus in a blaschkoid distribution. Dermatol Online J. 2017 Jun 15;23(6):13030/qt4fs9c744. PMID:28633749.
12. Happle, R., & Assim, A. (2001). The lines of Blaschko on the head and neck. Journal of the American Academy of Dermatology, 44(4), 612-615.
13. Shah, D. S. D., Aurangabadkar, D. S., & Nikam, D. B. (2019). An open-label non-randomized prospective pilot study of the efficacy of Q-switched Nd-YAG laser in management of facial lichen planus pigmentosus. Journal of Cosmetic and Laser Therapy, 21(2), 108-115