

Review Article

The Update on Dermoscopic Signs in General Dermatology Practice –A Review article

Rahul Kumar Sharma

Consultant dermatologist, Ajmer.

Corresponding Author: Dr. Rahul Kumar Sharma

Consultant dermatologist, Ajmer.

Abstract: Dermoscopy is a helpful non invasive bedside technique in clinical dermatology practice which allows us to make a quick and accurate diagnosis of many complicated and atypical skin diseases. Hence its acquaintance is imperative for all the dermatologists. The aim of this article is to make the science of dermoscopy lucid and easy. This article is intended to highlight the common signs in dermoscopy which will foster the usage of dermatoscope in regular cutaneous examination. The conditions discussed in this review article are psoriasis vulgaris, lichen planus, lichen planus pigmentosus, vitiligo, pityriasis versicolor, eczema, pityriasis rosea, melasma seborrheic keratosis, discoid lupus erythematosus ,prurigo nodularis, lupus vulgaris, alopecia areata , nevus sebaceous, dermatofibroma, pigmented purpuric dermatosis and cutaneous small vessel vasculitis.

Key words:- Signs in dermoscopy, Dermoscopy signs, General dermatology, New in dermoscopy

Introduction

Dermoscopy is a supportive non invasive bedside technique in general dermatology practice which allows us to make a speedy and precise diagnosis of many complicated and atypical dermatological conditions. Hence its familiarity and meticulous training is vital for all dermatologists. The endeavor of this article is to create the understanding of dermoscopy science. This article is intended to emphasize the important signs in dermoscopy, which will help in distinguishing close differential diagnosis of skin conditions.

Psoriasis vulgaris

The typical dermoscopic sign of Psoriasis vulgaris includes silvery white scales and uniformly distributed homogeneous red globular blood vessels.¹



Figure 1 Homogeneous and uniformly distributed red globules with silvery white scaling

Lichen planus(LP)

The whitish striae which is also called as Wickham's striae is the most noteworthy dermoscopic feature of lichen planus . Dermoscopic features of LP also include a non specific vascular pattern consisting of red lines.^{1,2}

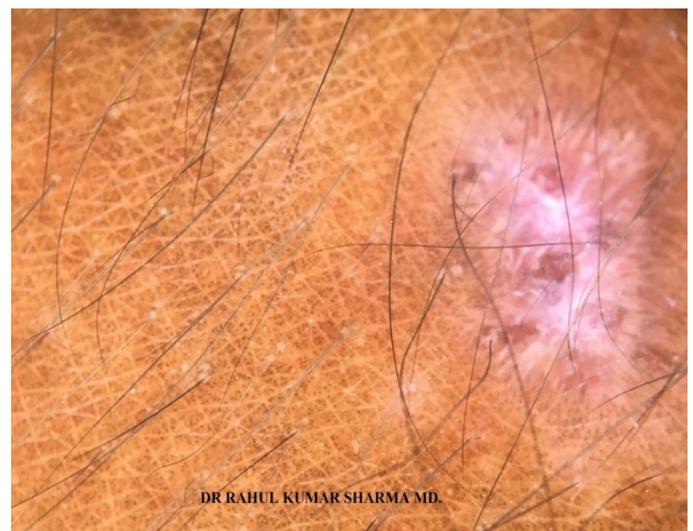


Figure 2 Dermoscopy of lichen planus

Lichen planus pigmentosus (LPP)

Lichen planus pigmentosus is an uncommon variant of LP. One recent study showed that annular granular pattern is the commonest pattern in Indian LPP cases followed by homogeneous brown pigmentation.³

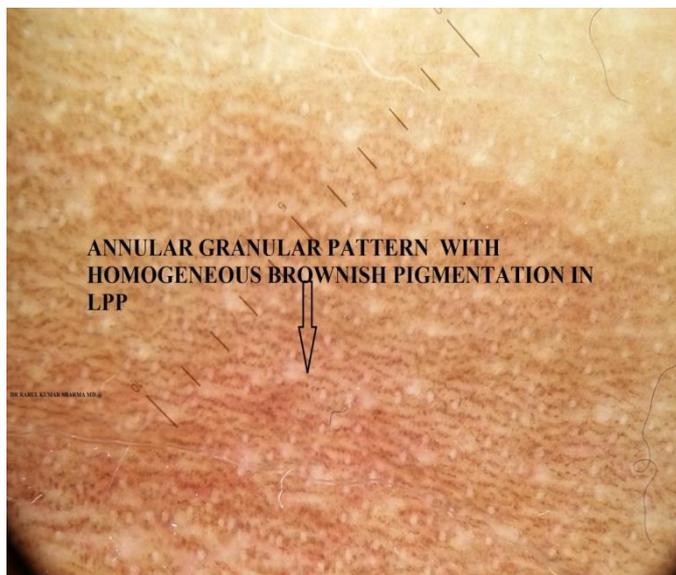


Figure 3 Dermoscopy of lichen planus pigmentosus

Vitiligo

Dermoscopic examination of vitiligo may show changes in pigmentary network ranging from absent to reverse pigmentary network. The most important area to focus during dermoscopic examination in vitiligo is perifollicular, it may show hyperpigmentation of perifollicular area in case of active disease.⁴



Figure 4 Depigmented macules with perifollicular pigmentation and altered pigmentary network

Pityriasis versicolor (PV)

Although PV is very common superficial fungal infection, but in confusing clinical situations dermoscopy can be worthy. The dermoscopic picture of PV is characterized by fine scaling following the furrows.⁵



Figure 5 Dermoscopy of PV lesions showing fine scaling following the furrows

Eczema

It is dermoscopically characterized by the presence of yellow clods, yellowish scaling and patchy dotted blood vessels.⁶



Figure 6 Yellowish scaling and patchy dotted blood vessels

Pityriasis rosea (PR) -

Dermoscopy is helpful in differentiating PR from psoriasis and other similar papulosquamous dermatological conditions.^{6,7}



Figure 7 Dotted vessels and peripheral scales with yellowish background

Melasma

The acquaintance of dermoscopic signs in melasma helps to understand the type of melasma and its prognosis. Furthermore it also helps to decide the therapeutic line of action. The presence of regular pigment network with a brownish homogeneous pigmentation signifies the presence of superficial epidermal melasma whereas bluish gray pigmentation with irregular network is in support of dermal component in melasma. If both types of patterns are seen then we have to consider the possibility of mixed melasma.⁸



Figure 8 Regular pigment network with the background of brownish homogeneous pigmentation

Lupus vulgaris-

Dermoscopy by and large shows orange yellow structure less areas with non specific vascular pattern.^{7,9}



Figure 9 Lesion of lupus vulgaris showing Orange- yellow structure-less areas with non specific vascular pattern and scaling in dermoscopy

Discoid lupus erythematosus (DLE)

Dermoscopy of DLE shows erythematous to pigmentary changes, follicular hyperkeratosis, branching blood vessels, adherent scaling, structure-less areas and radiating red lines in

the periphery.^{7,9}



Figure 10 Erythematous pigmentary changes, branching blood vessels and scaling

Alopecia areata(AA)

One Indian dermoscopic study of 138 biopsy proven cases of AA showed yellow dots (10 cases), white dots in cotton wool pattern (3 cases), black dots (25 cases), dermoscopic coudability (38 cases), pigtail hairs (2 cases), short vellus hairs (5 cases) and short broken hairs (18 cases). Exclamation mark hairs were very common and were detected in 131 patients out of 138. These signs were present in various combinations.¹⁰



Figure 11 Dermoscopy of alopecia areata

Nevus sebaceous

In dermoscopy it typically shows lobular papillary appearance with yellowish background. Occasionally it may present with cerebriform pattern and sulci-gyri pattern .¹¹



Figure 12 Cerebriform and lobular grayish papillary appearance with yellowish background

Other miscellaneous images from dermoscopy are as follow-

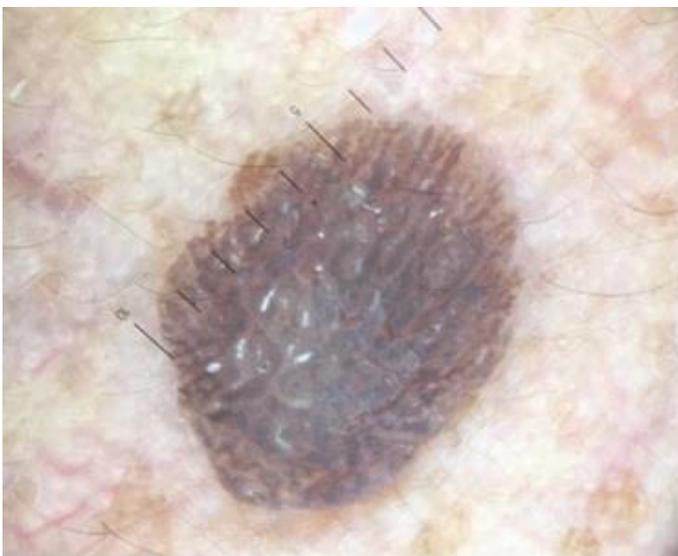


Figure 13 Dermoscopy of Seborrheic keratosis showing sulci and gyri cerebriform pattern



Figure 14 Dermoscopy of prurigo nodularis showing classical star burst pattern

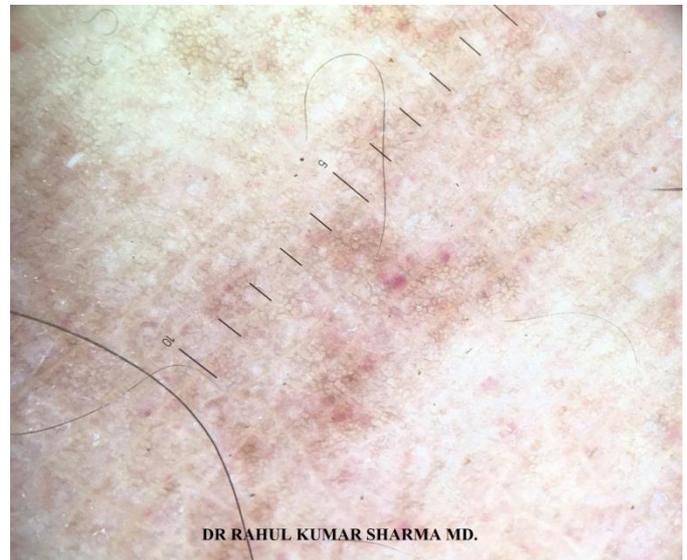


Figure 15 Purpuric globules in a case of pigmented purpuric dermatosis

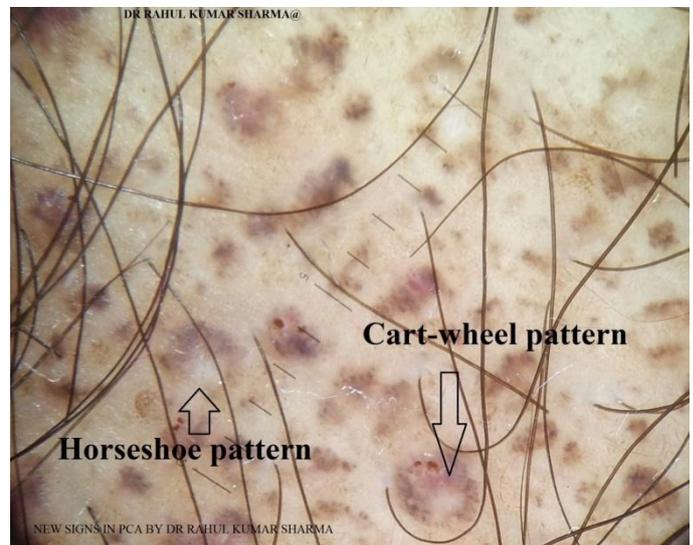


Figure 16 Dermoscopy of primary cutaneous amyloidosis (New signs)¹²

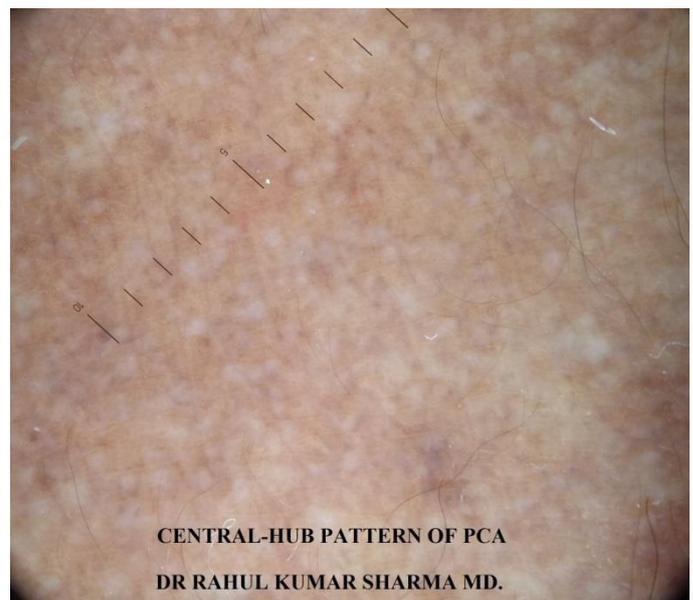


Figure 17 Commonest pattern seen in primary cutaneous amyloidosis

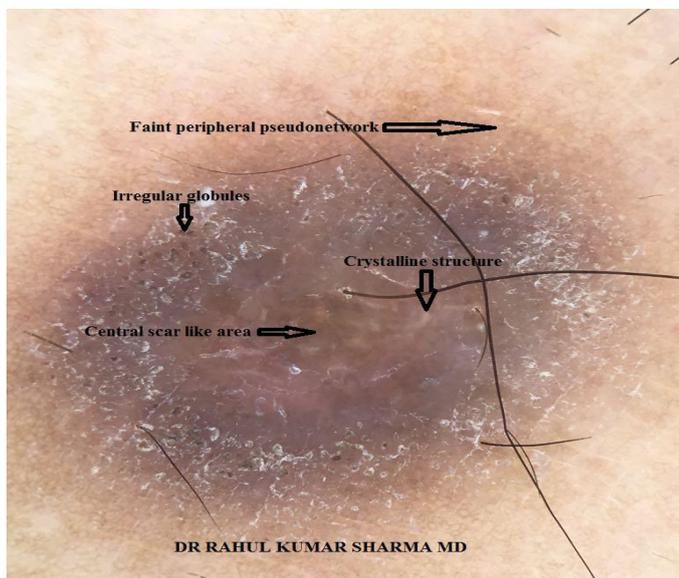


Figure 18 Dermoscopy of dermatofibroma



Figure 19 Purpuric patches and globules in a case of cutaneous small vessel vasculitis

References

- [1] Vázquez-López F, Manjón-Haces J, A, Maldonado-Seral C, Raya-Aguado C, Pérez-Oliva N, Marghoob A, A, Dermoscopic Features of Plaque Psoriasis and Lichen Planus: New Observations. *Dermatology* 2003;207:151-156
- [2] Vázquez-López F, Alvarez-Cuesta CC, Hidalgo García Y, Pérez Oliva N: The handheld dermatoscope improves the recognition of Wickham striae and capillaries in lichen planus lesions. *Arch Dermatol* 2001;137:1376.
- [3] Rahul Kumar Sharma, Rajendra Kumar Sharma" "Lichen Planus Pigmentosus - New Dermoscopy Signs Discovered" International Journal of Innovative Research in Medical Science(IJIRMS), <http://ijirms.in/index.php>, Volume 03 Issue 02, February 2018, p. No. 1707-1709
- [4] Chandrashekhar L. Dermoscopy: A tool to assess stability in Vitiligo. In: Khopkar U, editor. *Dermoscopy and Trichoscopy in Diseases of the Brown Skin: Atlas and Short Text*. New Delhi, India: Jaypee Brothers Medical Publishers; 2012. p. 112-3.
- [5] Zhou, Hui et al. Dermoscopy as an ancillary tool for the diagnosis of pityriasis versicolor. *Journal of the American*

Academy of Dermatology , Volume 73 , Issue 6 , e205 - e206

- [6] Lallas A, Kyrgidis A, Tzellos TG, Apalla Z, Karakyriou E, Karatolias A et al. Accuracy of dermoscopic criteria for the diagnosis of psoriasis, dermatitis, lichen planus and pityriasis rosea. *British Journal of Dermatology*. 2012 Jun;166(6):1198-1205.
- [7] Enzo Errichetti, Giuseppe Stinco, *Dermoscopy in General Dermatology: A Practical Overview*, *Dermatology and Therapy*, 2016, 6, 4, 471
- [8] Barcauí CB, Pereira FBC, Tamler C, Fonseca RMR. Classification of melasma by dermoscopy: Comparative study with Wood's lamp. *Surg Cosm Dermatol*. 2009;1:115–9.
- [9] Lallas, A., Argenziano, G., Apalla, Z., Gourhant, J.Y., Zaballos, P., Di Lernia, V., Moscarella, E., Longo, C. and Zalaudek, I. (2014), Dermoscopic patterns of common facial inflammatory skin diseases. *J Eur Acad Dermatol Venereol*, 28: 609–614.
- [10] Rahul Kumar Sharma, Divya Sharma, Rajendra Kumar Sharma" "Indian Dermoscopic Study of One Thirty Eight Cases of Alopecia Areata" *International Journal of Innovative Research in Medical Science(IJIRMS)*, <http://ijirms.in/index.php>, Volume 03 Issue 02, February 2018, p. No. 1704-1706
- [11] Kim NH, Zell DS, Kolm I, Oliviero M, Rabinovitz HS. The Dermoscopic Differential Diagnosis of Yellow Lobularlike Structures. *Arch Dermatol*. 2008;144(7):962.
- [12] Sharma RK: Dermoscopic Study Of Primary Cutaneous Amyloidosis –New Cartwheel And Horse-shoe Pattern Revealed. *Indian Journal of Clinical Dermatology* 2018; ahead of publication
- [13] Ozkaya DB, Emiroglu N, Su O, et al. Dermatoscopic findings of pigmented purpuric dermatosis. *Anais Brasileiros de Dermatologia*. 2016;91(5):584-587. doi:10.1590/abd1806-4841.20165124.