

Dermoscopic Features of Cutaneous Collagenous Vasculopathy: A Report of Rare Disorder

Sir,

A middle aged female, receiving treatment for her hypertension and hypothyroidism sought dermatology consultation for multiple asymptomatic skin lesions on both the lower extremities for past one year. There was no history of hyperlipidemia, diabetes mellitus, autoimmune conditions, bleeding from orifices, trauma or any seasonal variation. Her family history was negative for similar complaints. Laboratory studies were within normal limits, including complete blood count, renal function test, liver function test, fasting glucose, lipid profile, C-reactive protein, and erythrocyte sedimentation rate. Viral markers were nonreactive.

On clinical examination, the patient had multiple nonblanching, nontender erythematous as well as brownish hyperpigmented macules on both lower legs and dorsum of both feet [Figure 1]. Dermoscopy of the lesions using Dermalite II PRO-HR Dermatoscope 3Gen's (10× magnification) demonstrated mainly vascular structures such as red dots, serpentine vessels, comma-like vessel, red globules, glomerular vessels, reddish-to-violaceous patches, brown pigmented network, and bluish pigmentation [Figures 2 and 3]. Skin biopsy of the lesions showed vasculopathy involving small vessels of the superficial plexus surrounded by the moderately dense lymphocytic infiltrate and abundant pink collagenous deposit in the vessel wall, which was Periodic Acid Schiff positive [Figure 2]. The diagnosis of

cutaneous collagenous vasculopathy (CCV) was reached on the basis of clinical, dermoscopic, and histological examinations.

CCV is a rare, idiopathic cutaneous microangiopathy affecting the superficial dermal blood vessels which was first reported in 2000 by Salama and Rosenthal.^[1] The exact pathomechanism of the condition is not yet elucidated. It is proposed that there is vascular damage followed by repair with defective collagen formation and disorganization in cutaneous blood vessel wall.^[1] Till now, more than 28 cases have been reported in the literature.^[2] Brady *et al.* described CCV in middle-aged adults, equally in both males and females.^[3] CCV has been found to be associated with hypertension, cardiovascular disease, autoimmune conditions, and diabetes mellitus.^[3,4] This condition remains largely underdiagnosed and is commonly mistaken for pigmented purpuric dermatosis (PPD) or leukocytoclastic vasculitis.^[3-5]

According to the literature, the most commonly described clinical features of CCV were asymptomatic bilaterally symmetrical progressive telangiectasias on lower extremities with gradual progression to upper extremities and rarely to the trunk.^[3,4] However, in our case, we observed erythematous macules and patches instead of telangiectasias.

Dermoscopy refers to the examination of the skin using skin surface microscopy. At present, it is one of the useful and easily applicable tool for diagnosis of several



Figure 1: (a and b) Multiple non-blanching erythematous as well as brownish hyperpigmented macules on both lower legs and dorsum of both feet

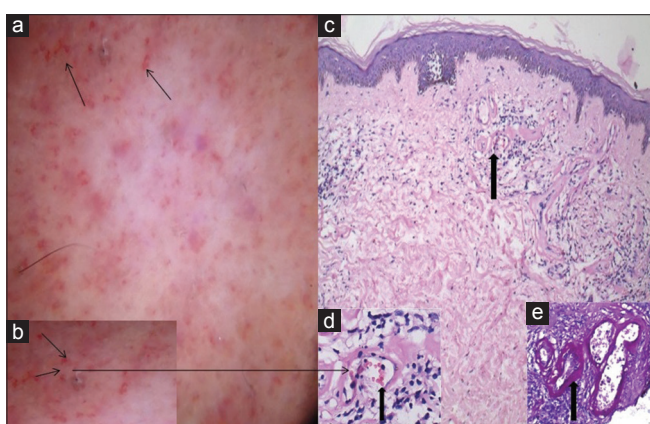


Figure 2: Dermoscopic picture of vascular structures (a and b) correspond histopathologically with dilated superficial blood vessels (c - H and E $\times 100$) and (d - H and E $\times 400$), PAS positive dilated superficial blood vessels (e - PAS $\times 400$)

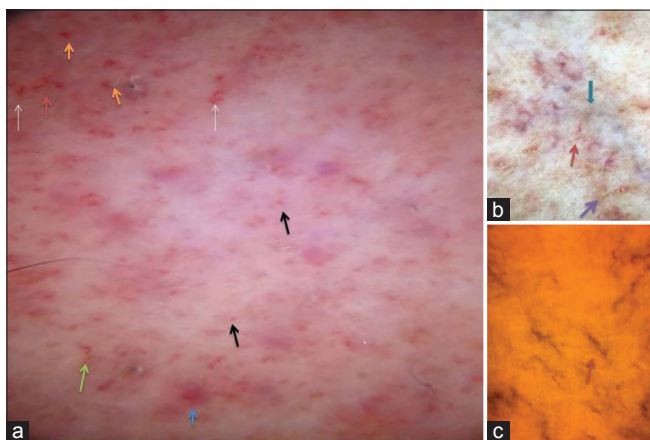


Figure 3: (a and b: white light, c: orange light): Red dots (black arrow), serpentine vessels (red arrow), comma-like vessels (green arrow), red globules (orange arrow), glomerular vessels (white arrow), reddish to violaceous patches (blue arrow), brown pigmented network (purple arrow) and bluish pigmentation (yellow arrow)

vascular skin conditions. On histological examination, it is difficult to fully appreciate the morphologic features of

vessels as histology provides a vertical view of sections of lesions, whereas dermoscopy provides a horizontal view of the lesion, allowing the identification of a wide variety of vascular structures, including morphological and architectural features. Thus, dermoscopy may provide additional information of diagnostic value.^[6]

In our case, dermoscopic images helped to diagnose vasculopathy with the presence of vascular structures such as red dots, serpentine vessels, comma-like vessels, red globules, glomerular vessels, reddish-to-violaceous patches, brown pigmented network and central bluish hue [Figure 3]. Dermoscopic vascular structures in this case may correspond histopathologically with dilated papillary blood vessels [Figure 2]. Usually, dermoscopy of leukocytoclastic vasculitis shows red dots or globules in a patchy orange-brown background and that of PPD shows brown dots, linear brown lines, on coppery-red background. All these findings were absent in our case.^[2,6,7] Thus, with the use of dermoscope, we can easily differentiate vasculopathy from the above two conditions. Further studies will aid in establishing the dermoscopic pattern of CCV.

The current report emphasizes the need of awareness for it's the clinical and dermoscopic features of this entity.,

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Conflicts of interest

There are no conflicts of interest.

Daksha Vasava, Hita Mehta

Department of Dermatology, Venereology and Leprosy, Government Medical Collage and Sir T Hospital, Bhavnagar, Gujarat, India

Address for correspondence:

Dr. Hita Mehta,

Department of Dermatology, Venereology and Leprosy, Government Medical Collage and Sir T Hospital, Bhavnagar, Gujarat, India.


E-mail: hitamehta88@gmail.com

References

- Salama S, Rosenthal D. Cutaneous collagenous vasculopathy with generalized telangiectasia: An immunohistochemical and ultrastructural study. *J Cutan Pathol* 2000;27:40-8.
- Knöpfel N, Martín-Santiago A, Saus C, Escudero-Góngora MM, Del Pozo LJ, Gómez C. Extensive Acquired Telangiectasias: Comparison of Generalized Essential Telangiectasia and Cutaneous Collagenous Vasculopathy. *Actas Dermosifiliogr* 2017;108:e21-6
- Brady BG, Ortleb M, Boyd AS, Powers J. Cutaneous collagenous vasculopathy. *J Clin Aesthet Dermatol.* 2015;8:49-52.
- Burdick LM, Losher S, Somach SC, Billings SD. Cutaneous collagenous vasculopathy: A rare cutaneous microangiopathy. *J Cutan Pathol* 2012;39:741-6.
- Rambhia KD, Hadawale SD, Khopkar US. Cutaneous collagenous vasculopathy: A rare case report. *Indian Dermatol Online J* 2016;7:40-2.

6. Martín JM, Bella-Navarro R, Jordá E. Vascular Patterns in Dermoscopy. *Acta Dermosifiliogr* 2012;103:357-75
7. Dilek BO, Nazan E, Nahide O. Dermoscopic findings of pigmented purpuric dermatosis. *An Bras Dermatol* 2016;91:584-7.

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