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Acquired Unilateral Nevoid Telangiectasia: Dermoscopy and Histopathology Findings of a Rare Dermatomal Vascular Anomaly

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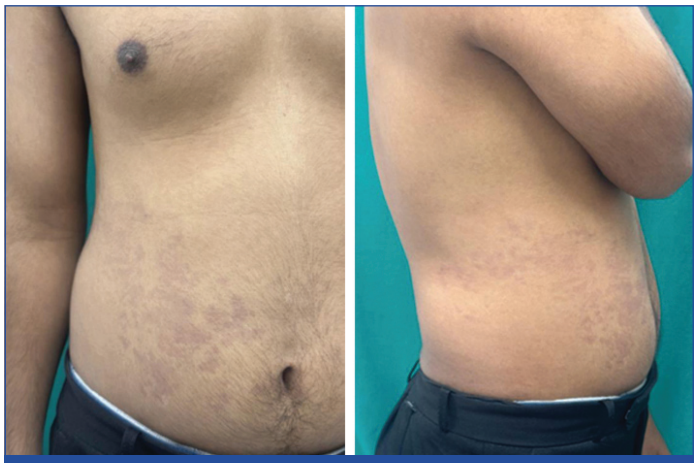
A 26-year-old male presented with an asymptomatic red lesion on the right side of his flank for two months. The lesion gradually enlarged over this period without pruritus, pain, or mucosal involvement. The patient denied alcohol consumption, drug use, recent weight changes, visual disturbances, or any history of cold- or stress-induced worsening. There was no history of birth complications or relevant family history.

Clinical examination revealed multiple erythematous, blanchable macules and patches over the right flank, distributed along the T9-T11 dermatomes [Table/Fig-1,2]. The patient's laboratory investigations, including liver function, thyroid function, and viral serology, were all within normal limits, ruling out common systemic associations.

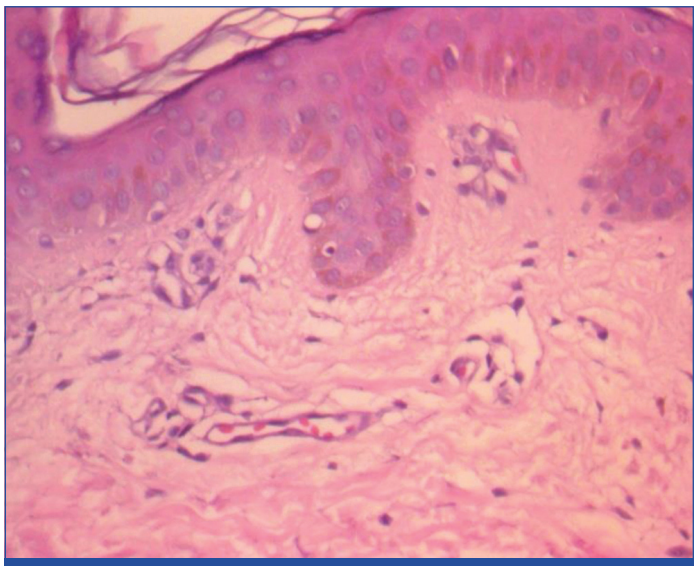


[Table/Fig-1,2]: Multiple, well defined, erythematous, blanchable patches over the right flank. (Image from left to right)

On dermoscopy, accentuation of the skin markings and a reticular pigment network with grouped dotted vessels [Table/Fig-3] were observed.

[Table/Fig-3]: Polarised dermoscopy, 20x magnification showing reticular pigment network with grouped dotted vessels.

A 4 mm punch biopsy was taken from the right side of the trunk, which showed multiple dilated capillaries lined by a single layer of endothelial cells containing Red Blood Cells (RBCs) within the superficial dermis. Mild perivascular lymphocytic infiltration was present, with no spindle cells, granulomas, extravasated RBCs, or endothelial cell clusters. The overlying epidermis was unremarkable, confirming telangiectasia [Table/Fig-4].



[Table/Fig-4]: Histopathology (H and E stain) with 40x magnification showing multiple dilated capillaries lined by a single layer of endothelial cells containing RBCs within the superficial dermis.

Differential diagnoses for Unilateral Nevoid Telangiectasia (UNT) include poikiloderma of Civatte, cutaneous mastocytosis, and Telangiectasia Macularis Eruptiva Perstans (TMEP). However, the characteristic dermatomal distribution and histopathological findings in this case confirmed the diagnosis of UNT.

UNT was originally described by Selmanowitz in 1970, although Zeisler and Blaschko first characterised it in 1899. Surface telangiectasias are a characteristic feature of this uncommon vascular disease. Unilateral lesions are distributed in a Blaschkoid or dermatomal pattern [1]. Congenital or acquired, UNT is more common in women and usually affects the trigeminal, cervical, and upper thoracic nerve dermatome distributions. Despite the fact that the exact cause of the illness is still unknown, hyperestrogenic situations such as adolescence, pregnancy, and chronic liver disease are thought to be contributing factors [2]. Although bilateral occurrences have also been documented, the majority of cases exhibit unilateral lesions along the Blaschko line. The convoluted, dilated capillaries of the upper dermis, without abnormal vascular endothelial cell growth, are among the pathogenic characteristics. When examined under a microscope, UNT typically appears as spherical or dotted vessels on a reddish background [3].

The main clinical basis for diagnosis is the distinctive appearance and location of the lesions. Dermoscopy can aid in the assessment by revealing a network of red, tortuous, dilated capillaries that are not

melanocytic. Although UNT is benign, it can occasionally be confused with other vascular or dermatological disorders, which emphasises the importance of dermatologists being aware of the condition and making an accurate diagnosis [4]. Reported associations include pregnancy, oral contraceptive use, chronic alcoholism, hepatitis B and C, hyperthyroidism, and carcinoid disease. Liver cirrhosis is the most frequent cause in men, although cases have also been reported following chemotherapy for Hodgkin's disease, even in the absence of liver dysfunction [5].

The preferred method of treatment for improving the appearance of the condition is a pulsed dye laser. Other therapeutic modalities that have been tried include cryotherapy, electrocoagulation, radiofrequency, long pulsed Nd:YAG (1064 nm) laser, CO_2, and argon laser [1].

UNT is not as uncommon as originally thought; despite still being a rare syndrome, it is characterised by asymptomatic superficial dermal telangiectasias that typically affect the cervical and upper thoracic nerve distributions (C3-T2), as well as the trigeminal nerve divisions. These telangiectasias can occur unilaterally or, less frequently, bilaterally in a dermatomal distribution. Numerous individuals present during pregnancy and at the onset of puberty, and a 2:1 female to male predominance is observed, suggesting that hyperestrogenic conditions may be an underlying pathophysiological basis of the condition [6]. However, to date, this theory has not been substantiated by any published data. Consequently, UNT remains somewhat of a mystery, and its physiological features are still unclear. More research is required to gain a better understanding of this particular condition.

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