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A CASE OF CUTANEOUS SMALL VESSEL VASCULITIS

Dermatology

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ABSTRACT

Cutaneous small vessel vasculitis (CSVV) is an inflammatory condition primarily affecting small dermal blood vessels, presenting as palpable purpura, typically on the lower extremities. A 61-year-old male presented with painful, erythematous, and purpuric lesions over lower limbs. Laboratory tests revealed elevated inflammatory markers, and a skin biopsy confirmed leukocytoclastic vasculitis. The patient was treated with prednisone and colchicine, resulting in significant improvement and complete resolution of lesions within six weeks. This case highlights the importance of early recognition and appropriate treatment of CSVV to ensure favourable outcomes and prevent complications. Regular follow-up is essential to monitor for recurrence.

KEYWORDS

Cutaneous Small vessel vasculitis, leukocytoclastic vasculitis, Palpable purpura

INTRODUCTION:

CSVV is a single organ vasculitis producing leukocytoclastic angiitis of cutaneous vasculature. The primary target is the post capillary venules in the skin with clinical manifestation in the form of symmetric palpable purpura of lower limbs and histopathological finding of leukocytoclastic vasculitis. CSVV of the skin can manifest as cutaneous leukocytoclastic angiitis, a primary idiopathic ailment, or as a secondary disorder due to medication, infection (streptococcal infection, viral hepatitis), or underlying disease (malignancy, connective tissue disease). [1]

CASE REPORT:

A 61-year-old male presented to the dermatology outpatient department with complaints of red raised lesions over right lower limbs for 6 months. The patient also complaints of pain and burning sensation over the lesions with mild itching. There was no history of fever, abdominal pain, diarrhea, blood in urine, and joint pain. There was no history of similar complaints in the past. No history of lymphadenopathy / weight loss. Family history was irrelevant. He gives history of treatment with native medication for past 10 days. He is a known case of systemic hypertension for the past 3 months and is on treatment for the same. He is a security personnel by profession with history of standing for long hours.

There was no significant abnormality detected on general and systemic examination. On cutaneous examination multiple palpable purpura measuring 3-4mm with central crusting were present over right lower limb. (Figure1)

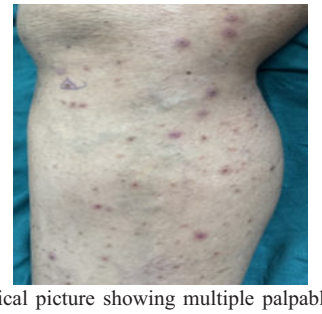

Figure 1: Clinical picture showing multiple palpable purpura over right lower limb

Histopathological examination showed transmural neutrophilic inflammation of small blood vessels, fibrinoid necrosis and nuclear fragmentation (Figure 2 and 3). Antinuclear Antibody (ANA) and Anti-neutrophil Cytoplasmic Antibodies (ANCA) were negative. Urinalysis was normal, no haematuria or proteinuria was seen. Erythrocyte sedimentation rate (ESR) and C-Reactive protein (CRP) were mildly elevated.

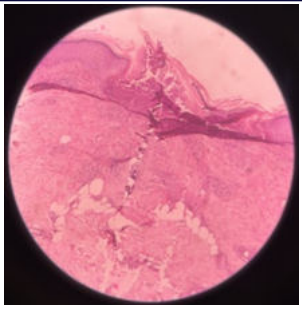

Figure 2: Scanner view of the epidermis showing ulceration with transmural neutrophilic inflammation of the dermis

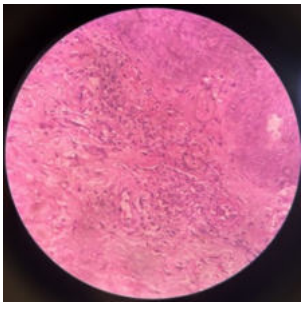

Figure 3: High power view showing transmural neutrophilic inflammation of the small blood vessels of dermis

A diagnosis of CSVV was made based on these supportive findings.

DISCUSSION:

CSVV is an inflammatory condition predominantly affecting the small vessels of the skin. It is characterized by palpable purpura, primarily on the lower extremities, but can occasionally involve other areas.[2] The etiology of CSVV can be diverse, encompassing idiopathic origins, infections, medications, and systemic diseases such as connective tissue disorders. Infections, particularly bacterial and viral, can trigger immune complex deposition in vessel walls, leading to inflammation. Drug-induced vasculitis has been linked to medications such as antibiotics, nonsteroidal anti-inflammatory medicines (NSAIDs), and certain diuretics. Vasculitic lesions are a possible symptom of a number of systemic disorders, such as rheumatoid arthritis and systemic lupus erythematosus.[3]

Clinically, CSVV presents as palpable purpura, which are raised, non-blanching, erythematous lesions. These lesions may coalesce, forming larger purpuric areas, and can be associated with symptoms like

burning, itching, and pain. Unlike systemic vasculitis, CSVV typically lacks systemic involvement, although in severe cases, extracutaneous manifestations can occur.[4]

The diagnosis of CSVV involves a thorough clinical evaluation, laboratory investigations, and histopathological examination. Essential laboratory tests include CBC, ESR, CRP, renal and liver function tests, urinalysis, and serological markers such as ANA and ANCA. The most reliable method of diagnosing leukocytoclastic vasculitis is still a skin biopsy. [5]

Treatment of CSVV focuses on addressing the underlying cause and managing inflammation. For idiopathic cases, corticosteroids like prednisone are commonly used. In addition, colchicine or dapsone may be employed for their anti-inflammatory effects. In drug-induced cases, discontinuation of the offending agent is crucial. For cases associated with systemic diseases, treatment of the underlying condition is necessary.

Prognosis for CSVV is generally favourable, particularly when treated promptly. Regular follow-up is essential to monitor for recurrence or potential complications. Early recognition and appropriate management are key to ensuring positive outcomes for patients with CSVV.

CONCLUSION:

CSVV is an inflammatory condition primarily affecting the small vessels of the skin, presenting as palpable purpura. It can be idiopathic or associated with infections, medications, or systemic diseases. Diagnosis relies on clinical evaluation, laboratory tests, and histopathology. Treatment typically involves corticosteroids and addressing underlying causes. The prognosis is generally favourable with prompt and appropriate management. Regular follow-up is essential to monitor for recurrence and complications. Early recognition and treatment are crucial for ensuring positive patient outcomes in CSVV.

Conflict Of Interest: Nil

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REFERENCES:

1. Carlson, J Andrew MD, FRCPC[*]; Chen, Ko-Ron MD, PhD[†]. Cutaneous Vasculitis Update: Small Vessel Neutrophilic Vasculitis Syndromes. The American Journal of Dermatopathology 28(6):p 486-506, December 2006.
2. Jennette JC, Falk RJ, Bacon PA, et al. 2012 Revised International Chapel Hill Consensus Conference Nomenclature of Vasculitides. Arthritis & Rheumatism. 2013;65(1):1-11.
3. Eustace JA, Katz JD, Jasin HE. The spectrum of vasculitis: clinical, pathologic, and therapeutic considerations. J Rheumatol. 1992;19(1):54-63.
4. Gibson LE. Cutaneous vasculitis update. *Dermatologic Clinics*. 2001;19(4):603-615.
5. Poterucha TJ, Wetter DA. Histopathology of cutaneous vasculitis. *Clinical Reviews in Allergy & Immunology*. 2018;54(3):417-429.