"Thousand Reasons Why: Leukocytoclastic Vasculitis in Elderly"

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Abstract

Intro

Leukocytoclastic vasculitis (LCV) is a small vessel inflammatory disease mediated by the deposition of immune complexes. Multiple causes, including infection, medications, and diseases associated with immune complexes have been implicated in the pathogenesis. Cutaneous LCV presents as palpable purpura often localized in the lower extremities. To diagnose the underlying condition, complete blood count (CBC), blood cultures (Bcx), cryoglobulins, protein electrophoresis, Rheumatoid factor (RF), Anti Nuclear Antibodies (ANA), complement, and Anti Neutrophil Cytoplasmic Auto-antibody (ANCA) should be checked. Here were present a case of an elderly male on chronic steroids and prophylactic antibiotics found to have LCV.

Case report

86-year-old male with a past medical history of hypertension, hyperlipidemia, hypothyroidism, aortoiliac stent, history of colon cancer, deep vein thrombosis, benign prostatic enlargement, and idiopathic pulmonary fibrosis on home oxygen, presented with a 3-week history of purple-colored rash on the lower extremity. A small area of discoloration around the ankle expanded to petechial lesions on bilateral ankles, knees, and hands. Moreover, it was associated with chills. He denied other relevant complaints. He was compliant with home oxygen, Prednisone 30 mg daily, and Bactrim DS MWF. He denied recent travel or sick contact. In Emergency Department, he was afebrile and tachycardic. Initial labs showed leukocytosis and Acute Kidney Injury (AKI). Two sets of Blood Cultures (BCx) and Urine Analysis (UA) were obtained. Initial rheumatological workup was negative, except for elevated ESR, CRP, and low complement level. He was started on Prednisone 40mg daily and the Bactrim was discontinued. Blood cultures grew Gram-negative rods likely from a Urinary Tract Infection (UTI). The patient was started on IV Ceftriaxone for E. Coli bacteremia and UTI. Skin biopsy results were consistent with LCV. The patient remained afebrile during the hospital stay. After 7 days of IV antibiotics and increased dose steroids, subsequent blood cultures (BCx) were negative and the skin lesions improved. He was discharged on cefpodoxime to complete a 14-day course and home dose of prednisone. Bactrim remained discontinued. He had complete resolution of the lesion in the subsequent visit.

Conclusions

Treatment of the underlying cause of leukocytoclastic vasculitis typically leads to the resolution of the rash. However, up to 50% of cases are idiopathic and are treated empirically with steroids or other immunosuppressive agents. Although rare, LCV is an important skin manifestation of systemic disease or an underlying occult infection. In our case, despite high dose steroids, other factors like Bactrim, ILD, UTI, bacteremia, and unknown environmental may have provoked LCV episode making it harder to isolate the cause for acute presentation. Early diagnosis of the underlying cause of skin findings can allow for more timely treatment and better patient outcomes.