Leukocytoclastic Vasculitis and Renal Cell Carcinoma

Dua Cebeci¹, Şirin Yaşar¹, Hüsna Güder¹, Fatih Göktay¹, Pembe Gül Güneş², Sema Aytekin¹

¹Department of Dermatology, Haydarpaşa Numune Training and Research Hospital, Istanbul, Turkey
²Department of Pathology, Haydarpaşa Numune Training and Research Hospital, Istanbul, Turkey

Abstract

Leukocytoclastic vasculitis (LCV) is the most common form of cutaneous vasculitis, which presents with inflammation of small vessels in the skin stemming from immune complex deposition. The disease can affect several organs of the body such as the kidneys, central nervous system, heart, gastrointestinal tract, and lungs or it can be confined to only the skin. LCV clinically presents with an eruption of palpable purpuric papules, which may have central vesicles or pustules and may coalesce into larger plaques. LCV causative factors or associated diseases are usually drugs, infection, and rheumatic or collagen vascular disease but rarely malignancies. There are few studies on LCV associated with renal cell carcinoma (RCC). We report the case of our patient with LCV leading to the discovery of an asymptomatic, surgically curable RCC of the kidney.

Keywords: Vasculitis; renal cell carcinoma; kidney.
were detected in the left paraaortic area. A punch biopsy of the rash showed findings characteristic of leukocytoclastic vasculitis: fibrinoid deposits around the vessel wall with perivascular neutrophilic infiltrates in the cutaneous postcapillary venules, endothelial swelling, and erythrocyte extravasation (Fig 2a, b). The patient was diagnosed with LCV and treated with oral antihistamine and leg elevation. He was referred to a urology clinic for simple nephrectomy surgery, and pathological examination of the mass revealed RCC. The vasculitic skin lesions disappeared after surgical treatment, and the general health of the patient was good during a follow-up period of 3 years.

The clinical course of vasculitides is variable, and etiologies or associated conditions are diverse. Some vasculitides can be caused by allergy, drugs, rheumatic and/or autoimmune diseases, and infections. In some patients, vasculitis occurs during the course of or prior to malignancies, most often hematogenous malignancies such as leukemia and lymphoma rather than solid tumors. Various mechanisms have been proposed for tumor-associated LCV, including antigen–antibody complexes that form in response to tumor antigens and are deposited in the vessel walls, resulting in inflammation. Malignancy plays a role in 5% of patients with LCV. In conclusion, LCV might be a marker for malignancy, especially in unexplained cases. Early recognition of LCV associated with underlying malignancy may lead to more timely diagnosis, more successful treatment, and increased survival. We believe that in apparently idiopathic LCV, screening examination should be performed to detect any underlying early-stage curable solid malignancy. Consequently, patients who present with vasculitis of unknown cause, especially in those aged ≥50 years, should be investigated for an associated hidden malignancy.

Informed Consent: Approval was obtained from the patients.

Peers-review: Externally peer-reviewed.

Conflict of Interest: None declared.


Financial Disclosure: The authors declared that this study received no financial support.

References

1. Podjasek JO, Wetter DA, Pittelow MR, Wada DA. Cutaneous small-vessel vasculitis associated with solid organ malignan-