5-2020

Diltiazem Induced Bullous Leukocytoclastic Vasculitis

Elian D. Abou Asala
Henry Ford Health System, eaboua1@hfhs.org

David J. Gelovani
Henry Ford Health System, DGelova1@hfhs.org

Fiona Clowney
Henry Ford Health System, fclowne1@hfhs.org

Megan Scott
Henry Ford Health System, mscott10@hfhs.org

Jasmine Omar
Henry Ford Health System, jomar1@hfhs.org

Diltiazem Induced Bullous Leukocytoclastic Vasculitis

Elian Daoud Abou Asala MD, David J. Gelovani, Fiona Clowney, Megan Scott MD, Jasmine Omar MD

Department of Internal Medicine
Henry Ford Health System, Detroit, Michigan

Background

- Leukocytoclastic Vasculitis (LV) is an inflammatory disease characterized by fragmented neutrophilic infiltrate and fibrinoid necrosis of small vessels.
- The incidence of LV is about 30 per 1 million people per year, accounting for more than two-thirds of cutaneous vasculitis cases.

Case Presentation

- 64 year old woman presented with acute onset right leg rash with tense bullae on the dorsum of the foot two days after starting Diltiazem for atrial fibrillation.
- Physical exam showed:
  - diffuse petechiae present on thighs, buttocks, abdomen, and both upper extremities
  - nontender tense bullae which did not rupture on palpation or traction.
  - Desquamation of the superficial dermis on the dorsal aspect of both feet and ankles.
- Labs showed normal basic metabolic panel, complete blood count, liver function tests, ANCA, and urine analysis. C3 and C4 Complement were decreased.
- Punch biopsy of several petechial lesions demonstrated perivascular and dermal neutrophilic infiltrate and their nuclear dust along with fibrinoid necrosis of the small vessels consistent with acute leukocytoclastic vasculitis.
- Diltiazem was discontinued and patient began to improve.

Images

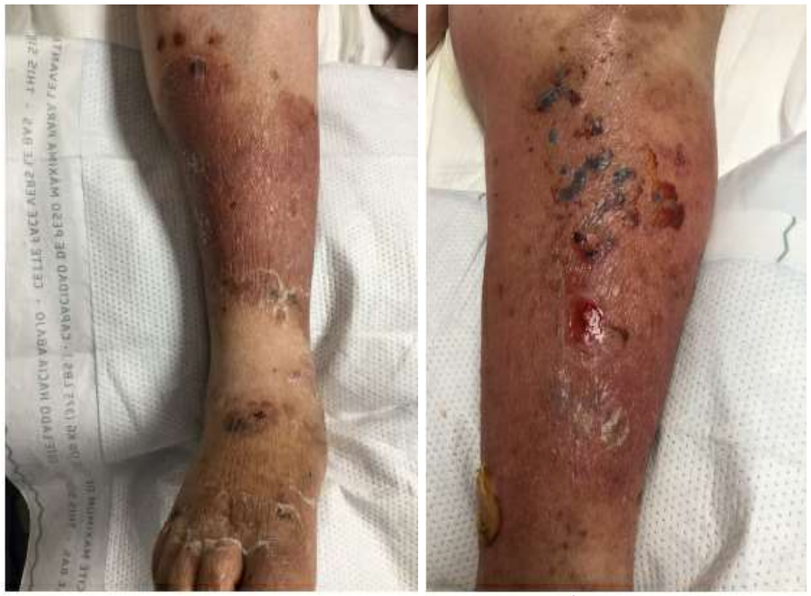

Figure 1 and 2. Diffuse petechiae, tense bullae, and desquamation of superficial dermis present on both lower extremities

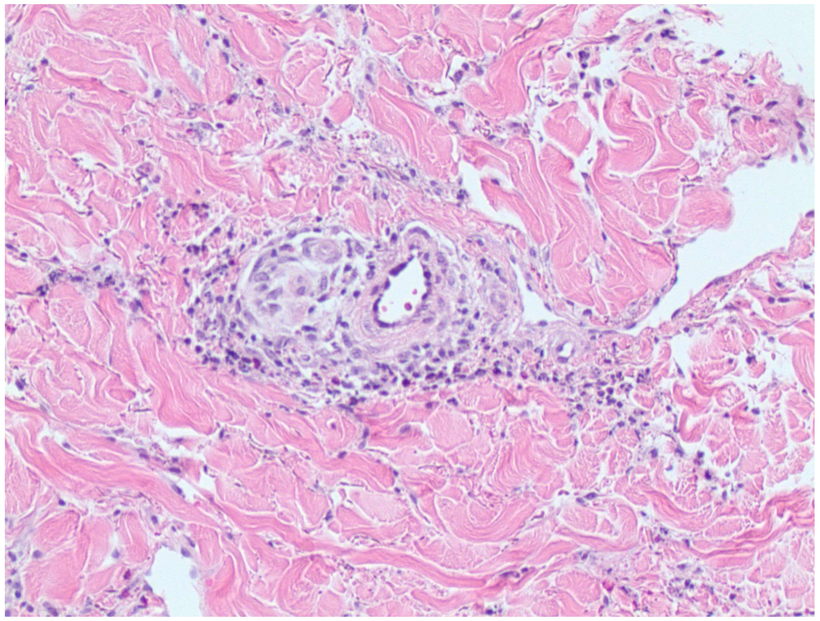

Figure 3. Skin punch biopsy demonstrating perivascular and dermal neutrophilic infiltrate, with fibrinoid necrosis of small vessels consistent with acute leukocytoclastic vasculitis

Discussion

- The most common cutaneous manifestation of LV is symmetric maculopapular purpura of the lower extremities, but may include a variety of presentations ranging from petechiae, urticaria, ulcers, nodules, hemorrhagic bullae, and gangrene of the fingers.
- Etiologies include drug reactions, infections, connective tissue diseases, and other rare causes.
- Nonsteroidal anti-inflammatory agents are the most commonly implicated drugs, while Group A beta-hemolytic streptococci are the most common infectious cause.
- Skin biopsy establishes a definitive diagnosis of LV.
- Diltiazem is a rare cause of LV, documented in few case reports.
- Most cases resolve spontaneously after removal of the inciting agent, however steroids have been used in some cases of severe LV.

References

Jennette JC, Falk RJ, Bacon PA, Basu N, Cid MC, Ferrario F, Flores-Suarez LF, Gross WL, Guillevin L, Hagen EC, Hoffman GS, Jayne DR, Kallenberg CGM, Lamprecht P, Langford, CA, Luqmani RA, Mahr AD, Matteson EL, Merkel PA, Ozen S, Pusey CD, Rasmussen N, Rees AJ, Scott DGI, Specks U, Stone JH, Takahashi K, Watts RA. 2012 Revised International Chapel Hill Consensus Conference Nomenclature of Vasculitides. Arthritis Rheum. January 2013; 65(1): 1-11.

Aounallah A, Arouss A, Ghariani N, Saidi W, Sriha B, Denguezli M, Belajouza C, Nouira R. Leukocytoclastic cutaneous vasculitis: about 85 cases. Pan Afr Med J. March 2017; 26:138.

Goeser MR, Lanioz V, Wetter DA. A practical approach to the diagnosis, evaluation, and management of cutaneous small-vessel vasculitis. Am J Clin Dermatol. 2014; 15 (4): 299-306.

Leelavathi M, Aziz SA, Gangaram HB, Hussein SH. Cutaneous vasculitis: a review of aetiology and clinical manifestations in 85 patients in Malaysia. Med J Malaysia. September 2009; 64(3):210-212.

Sheehan-Dare RA, Goodfield MJ. Widespread cutaneous vasculitis associated with diltiazem. Postgrad Med J. June 1988; 64(752): 467-468.

Sheehan-Dare RA, Goodfield MJ. Severe cutaneous vasculitis induced by diltiazem. Br J Dermatol. July 1988; 119(1): 134.

Kuo M, Winiarski N, Garella S. Nonthrombocytopenic purpura associated sequentially with nifedipine and diltiazem. Ann Pharmacother. September 1992;26(9): 1089-1090.

Wittal RA, Fischer GO, Georgouras KE, Baird PJ. Skin reactions to diltiazem. Australas J Dermatol. 1992; 33(1): 11-18.

Odeh M. Exfoliative dermatitis associated with diltiazem. J Toxicol Clin Toxicol. 1997; 35(1): 101-104.