ASDP 62nd Annual Meeting #ASDP25

November 6-9, 2025
Hilton Baltimore Inner Harbor **Baltimore, MD, USA**

Clinicopathologic and direct immunofluorescence features of leukocytoclastic vasculitis in chronic graft-versus-host disease

Yen T.H Le, M.D.[1,2] Emma F. Johnson, M.D.[1], Eric R. Tkaczyk, M.D., PhD[3], Julia S. Lehman, M.D[1]

[1]Mayo Clinic, Rochester, MN, [2]Vietnam National Hospital of Dermatology and Venereology, [3]Vanderbilt University Medical Center

asdp.org

1

ASDP 62nd Annual Meeting

November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

Disclosures

asdp.org

- This project is supported by the National Institutes of Health (NIH), under grant **R01 HL169944**, led by Dr. Eric Tkaczyk.
- The presenter has no relevant financial relationships or conflicts of interest to disclose.

#ASDP25

2

ASDP 62nd Annual Meeting
November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

BACKGROUND

asdp.org

- Chronic graft-versus-host disease often happens after allogeneic hematopoietic cell transplantation.
- The skin is the most frequently affected organ
- Common skin manifestations of cGVHD include : sclerotic induration, lichen planus–like lesions, or scaly erythematous patches
- Large-vessel vasculitis is known in cGVHD and can cause serious complications like stroke or paralysis. In contrast, small-vessel vasculitis, especially LCV, is less well understood, with limited data in this context.
- This study explores the possible relationship between leukocytoclastic vasculitis and chronic GVHD, with a focus on histopathologic and immunofluorescence findings.

#ASDP25

3

ASDP 62nd Annual Meeting
November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

METHODS

asdp.org

- With IRB approval, we retrospectively reviewed of 508 cGVHD patients (2000–2025).
- Identified biopsy-confirmed leukocytoclastic vasculitis cases.
- Four patients with cGVHD and LCV were selected.
- Reviewed skin biopsies and clinical data.

#ASDP25

4

ASDP 62nd Annual Meeting
November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

RESULTS

asdp.org

PATIENT CHARACTERISTICS

- 4 male patients, mean age 64 (range 59–71).
- All had multi-organ cGVHD involvement (gastrointestinal: 3, hepatic: 1, pulmonary: 2, renal: 3)
- 3 patients had skin sclerosis (before-2 or after LCV-1).
- We used the 2014 NIH criteria to classify cGVHD severity: two patients had moderate and two had severe disease

#ASDP25

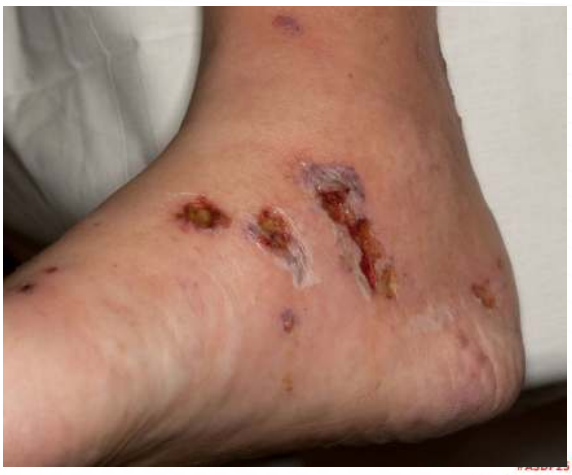
5

ASDP 62nd Annual Meeting
November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

CLINICAL FINDINGS

asdp.org

- All patients presented with purpura or violaceous macules predominantly on the lower extremities



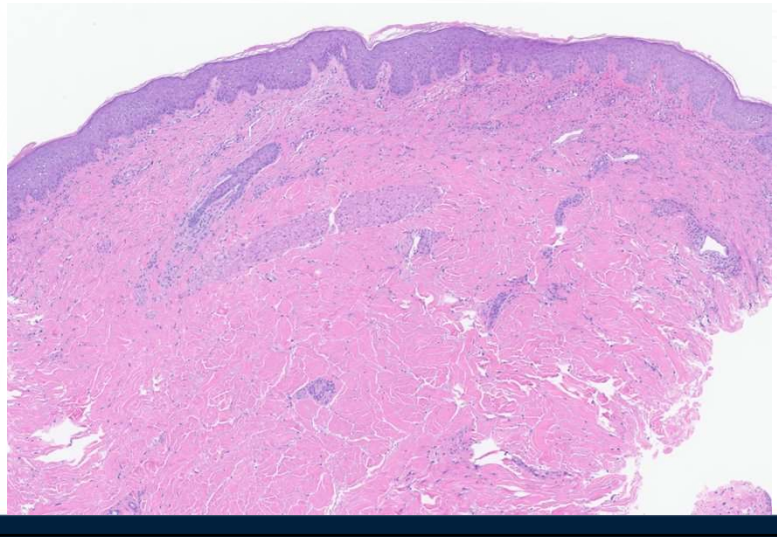
6

ASDP 62nd Annual Meeting
November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

HISTOPATHOLOGIC FINDINGS

asdp.org

- Histopathology of classic features of LCV including(all patients) : neutrophilic infiltration, leukocytoclasia (nuclear dust), hemorrhage.
- Superficial dermal leukocytoclastic vasculitis and dermal sclerosis (2 patients)



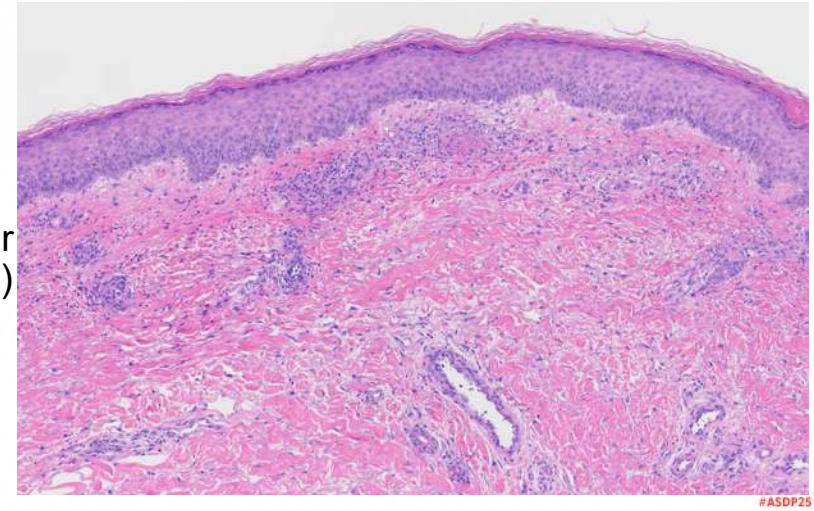
7

ASDP 62nd Annual Meeting
November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

HISTOPATHOLOGIC FINDINGS

asdp.org

Superficial dermal leukocytoclastic vasculitis and vacuolar interface (one patient)



#ASDP25

8

ASDP 62nd Annual Meeting
November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

DIF AND CRYOGLOBULINS

asdp.org

Direct immunofluorescence:

Granular Vascular Deposition Patterns:

- Vascular IgA: 2 cases
- Vascular IgM and C3: 1 case
- Negative: 1 case
- IgG: Negative in all cases

All patients were seronegative for cryoglobulins and cryofibrinogen

#ASDP25

9

ASDP 62nd Annual Meeting
November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

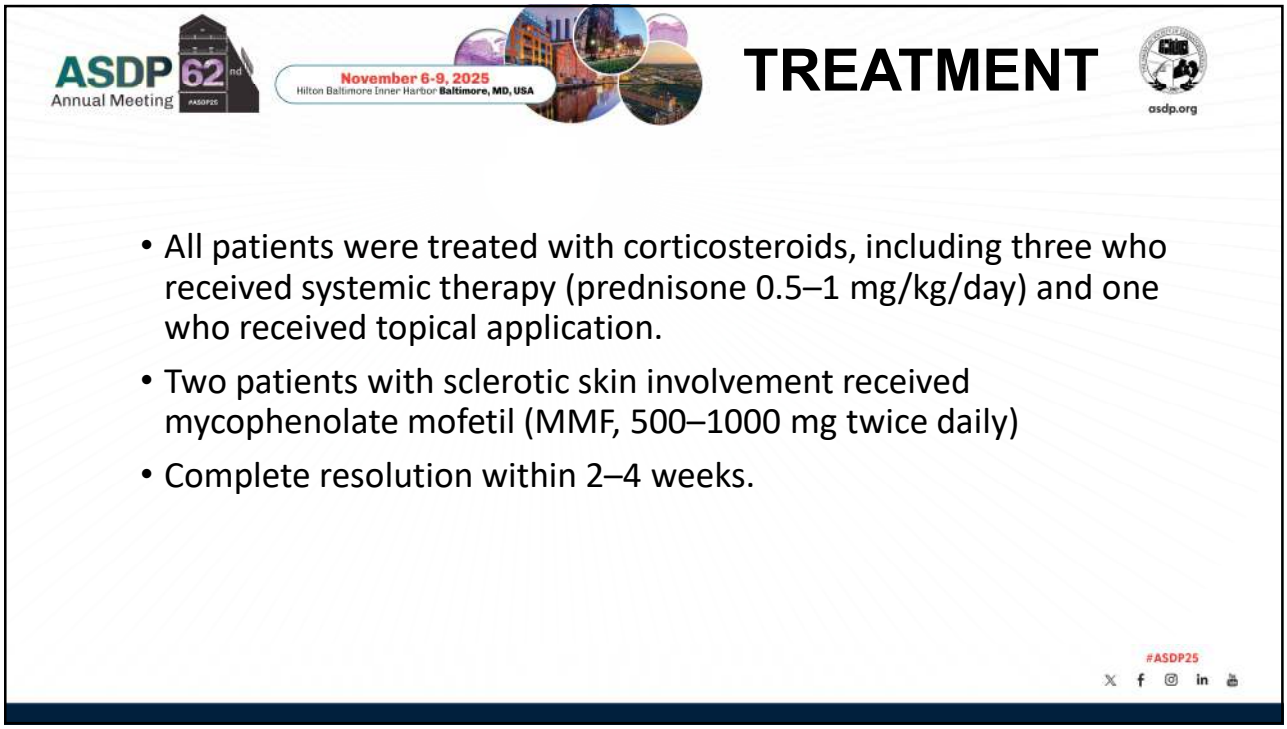
TRIGGERS

asdp.org

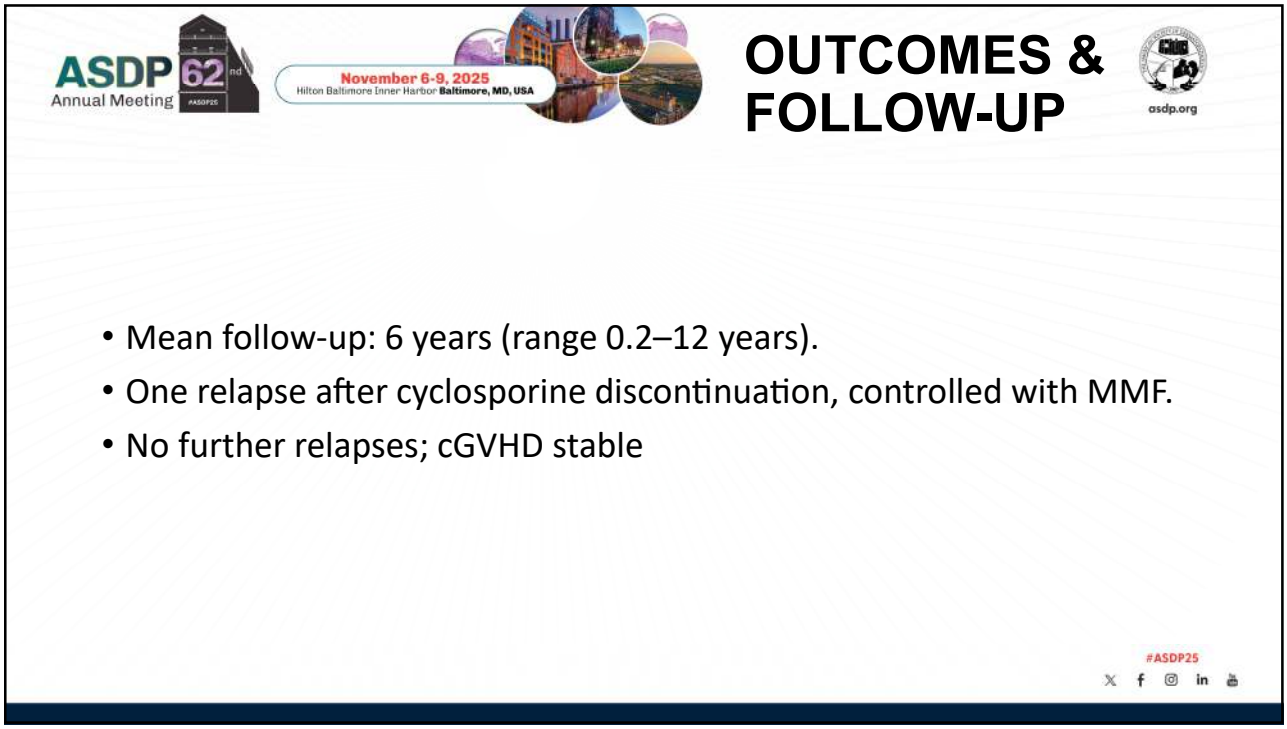
- 3/4 cases developed LCV after tapering or stopping immunosuppressive therapy (4–8 weeks) .
- 1 case triggered by acute kidney injury and discontinued immunosuppressive therapy.
- Infectious causes were excluded. None exhibited systemic or laboratory evidence of renal, neurologic, or gastrointestinal vasculitis.
- None of the patients had active hematologic disease at the time of LCV onset.

#ASDP25

10


ASDP 62nd Annual Meeting
November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA
TREATMENT
asdp.org
• All patients were treated with corticosteroids, including three who received systemic therapy (prednisone 0.5–1 mg/kg/day) and one who received topical application.
• Two patients with sclerotic skin involvement received mycophenolate mofetil (MMF, 500–1000 mg twice daily)
• Complete resolution within 2–4 weeks.
#ASDP25

11


ASDP 62nd Annual Meeting
November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA
OUTCOMES & FOLLOW-UP
asdp.org
• Mean follow-up: 6 years (range 0.2–12 years).
• One relapse after cyclosporine discontinuation, controlled with MMF.
• No further relapses; cGVHD stable
#ASDP25

12

ASDP 62nd Annual Meeting

November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

asdp.org

CONCLUSIONS: Key Findings

- This case series highlights (LCV) in patients with cGVHD
- LCV often appeared when immunosuppressive therapy was being reduced.
- The course of LCV was generally favorable.
- There are no signs of systemic vasculitis, LCV is limited to the skin.
- LCV can present alongside sclerotic or other cGVHD features.
- DIF findings are non-specific; IgA may be positive or negative.
- Responds well to corticosteroids ± MMF.
- Limitations of this study include the small sample size and retrospective design; Further studies needed

#ASDP25

13

ASDP 62nd Annual Meeting

November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

asdp.org

ACKNOWLEDGMENTS

- Thanks to patients and clinical team.
- I am grateful to my two wonderful mentors for their detailed, careful guidance in helping me carry out this research and report: Dr. Lehman and Dr. Johnson.

#ASDP25

14

ASDP 62nd Annual Meeting

November 6-9, 2025
Hilton Baltimore Inner Harbor Baltimore, MD, USA

THANK YOU FOR YOUR ATTENTION!

QUESTIONS
& ANSWERS

15