Upadacitinib Monotherapy for Refractory Linear IgA Bullous Dermatosis

A Case Report

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Introduction

- Linear IgA bullous dermatosis (LABD) is a rare autoimmune subepidermal blistering disease.
- Dapsone is first-line therapy. When it fails, systemic corticosteroids, immunosuppressants, or biologics may be required. Although some cases remain refractory.
- Evidence supporting Janus kinase (JAK) inhibitor use in LABD is limited.
- We report a case of refractory LABD successfully managed with upadacitinib monotherapy.

Case Presentation

- A 65-year-old woman presented with a 6-month blistering eruption refractory to topical steroids, doxycycline, and dupilumab (given for presumed bullous pemphigoid).
- Exam revealed erythematous, edematous annular-to-polycyclic plaques with peripheral vesicular accentuation on the legs and trunk.
- Morphology, brisk papillary dermal neutrophilia without eosinophilic spongiosis, and worsening on dupilumab favored a diagnosis of LABD over bullous pemphigoid.
- 44% of body surface area involved

Figure 1



Annular to polycyclic plaques with peripheral vesicular accentuation on the bilateral legs at presentation.

DIAGNOSTIC WORKUP

- Biopsy: subepidermal blister, neutrophilic infiltrate
- DIF: linear IgA, IgG, and C3 along the basement membrane zone (LAGBD subset)

WHY NOT BULLOUS PEMPHIGOID?

- Clinical worsening on dupilumab, an agent typically effective in bullous pemphigoid
- Neutrophil, not eosinophil, predominant histology
- On DIF, the predominant immunoglobulin type was IgA vs IgG and C3, which is often seen in bullous pemphigoid

Clinical Course

- Dapsone and prednisone were initiated, but disease progressed to 40% BSA and the patient developed significant hemolysis, precluding further dose escalation.
- Traditional immunosuppressants were limited by comorbidities.
- Upadacitinib 15 mg daily was started, with resolution of pruritus within 14 days.
- Persistent bullae prompted escalation to 30 mg daily. Blistering resolved with residual post-inflammatory hyperpigmentation by 4 weeks.

TREATMENT TIMELINE

- **Dapsone + prednisone**
  Hemolysis; disease progression to 40% BSA
- **Upadacitinib 15 mg daily**
  Pruritus resolved by day 14
- **Upadacitinib 30 mg daily**
  Blistering resolved by week 4

Figure 2



Resolution of blistering with residual post-inflammatory hyperpigmentation after 4 weeks on upadacitinib 30 mg daily.

Discussion & Conclusion

- Upadacitinib may interrupt JAK-dependent pathways involved in neutrophil recruitment and IgA production, linking JAK1 inhibition to LABD pathophysiology.
- This case represents a novel instance of LABD achieving rapid control with upadacitinib monotherapy.
- Findings support selective JAK1 inhibition as a potential therapeutic option when conventional therapies are contraindicated or insufficient.

KEY TAKEAWAYS

- **Selective JAK1 inhibition is a promising, steroid-sparing option for refractory LABD.**
- **Worsening on dupilumab together with neutrophil-predominant (rather than eosinophil-predominant) histology should prompt reconsideration of LABD over bullous pemphigoid, since a biologic targeting the wrong pathway may worsen neutrophilic disease.**

LIMITATIONS

Single-patient case report, durability of response and long-term safety of upadacitinib in LABD require confirmation in larger cohorts.

REFERENCES

1. Fortuna G, Marinkovich MP. Clin Dermatol. 2012;30(1):38-50.
2. Caux F, Patsatsi A, Karakioulaki M, et al. J Eur Acad Dermatol Venereol. 2024;38(6):1006-1023.
3. Shields BE, Hull CM, Zone JJ. In: Dermatology. 5th ed. Elsevier; 2024:543.
4. Mohamed MEF, Bhatnagar S, Parmentier JM, et al. Clin Transl Sci. 2024;17(1):e13688.
5. Lin MS, Fu CL, Olague-Marchan M, et al. Clin Immunol. 2002;102(3):310-319.
6. Fan B, Wang M. Dermatitis. 2023;34(2).
7. Fang Z, Ke H, Zhou J, et al. Clin Exp Dermatol. 2025;50(7):1439-1441.
8. Atcı T, Pehlivan Ulutaş G, Güreler Sirkeci E, Küçükoğlu R. An Bras Dermatol. 2025;100(2):277-282.
9. Yang Y, Xie H, Liu S, et al. Front Med (Lausanne). 2025;12:1521697.
10. Albyali S, Alhedaithi N, Alqahtani R, et al. Cureus. 2025;17(12):e99054.