

Pustular Eruption after Port Placement

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Case Presentation

A 12-year-old male with Duchenne muscular dystrophy (DMD) presented for port placement due to difficult intravenous access. Before the procedure, the surgical site was cleaned with chlorhexidine and 2g intravenous cefazolin was administered for prophylaxis. The patient underwent general anesthesia, and the port was placed via right internal jugular access. Absorbable sutures were used for closure, with dermabond applied superficially for protection. No contrast was used.

On post-operative day (POD) 1, a mildly pruritic, pustular eruption began around both incision sites, expanding centrifugally. By POD 3, the lesions demonstrated mild hemorrhagic crust surrounded by numerous, milky-white pustules on an erythematous base without drainage or warmth (Figures 1A and 1B). The patient was afebrile.

The white blood cell count was $9.9 \times 10^3/\mu\text{L}$ with 5% eosinophils; punch biopsy revealed intraepidermal pustules overlying infiltrating neutrophils and eosinophils (Figure 1C).

Based on the clinical context, lesion morphology, as well as histopathology demonstrating pustules out of proportion to the degree of spongiosis, the team favored a diagnosis of acute localized exanthematous pustulosis (ALEP). Management included stopping antibiotics, starting a mid-potency topical corticosteroid, and close monitoring. By POD 10, improvement was reported, with near complete resolution by POD 18 (Figure 1D).

Teaching Point

ALEP describes a localized variant of acute generalized exanthematous pustulosis (AGEP) that presents with sterile, non-follicular pustules within days of inciting exposure, most often drug-induced [1]. Cephalosporins have been implicated, and at least one case localized to a surgical site has been reported [1,2]. Early biopsy and recognition of ALEP may help avoid unnecessary prolonged antibiotic use and unnecessary interventions.

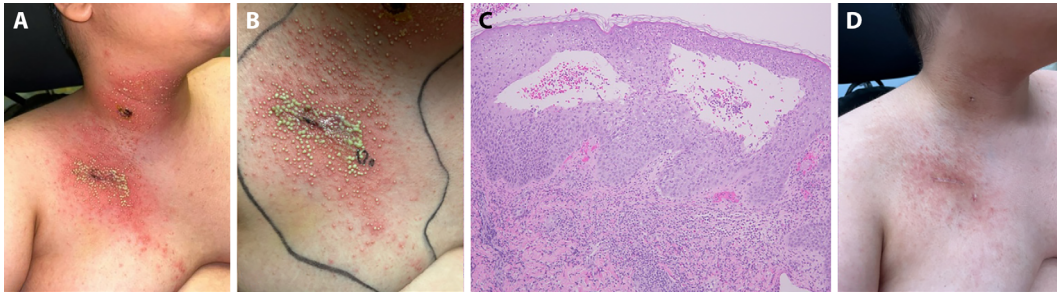


Figure 1. (A) Frontal view on postoperative day three, showing expansion of pustules beyond the immediate incision zone with a more diffuse erythematous halo. (B) High-resolution view of the incision sites with larger, centrally coalescing milky-white pustules with the biopsy site marked. (C) Pathology shows intraepidermal pustules overlying a perivascular and interstitial mixed cell infiltrate with focal extension towards deeper dermis. (D) Frontal view on postoperative day 18 with residual post-inflammatory erythema and faint hyperpigmentation surrounding the healed port and vascular access sites.

References

1. Safa I, Ines L, Nouredine L, et al. Acute localized exanthematous pustulosis: Clinical features, pathophysiology, and therapy. *Dermatol Ther.* 2021;34(5):e15087. DOI:10.1111/dth.15087
2. Patadia R, Pepper A. More Than Skin Deep: A Case of Acute Localized Exanthematous Pustulosis Following A Cosmetic Procedure. *Ann Allergy Asthma Immunol.* 2024 Nov 1;133(6):S206.