



Allergic Contact Dermatitis From Mastisol Adhesive Used for Perineural Catheter: A Case Report

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Introduction

- This abstract describes a case of allergic contact dermatitis (ACD) caused by Mastisol adhesive used after placement of a perineural catheter in a patient with history of Charcot Marie Tooth disease undergoing orthopedic corrective surgery.
- The incidence of allergic contact dermatitis in the general population due to Mastisol is unknown and an overall rare phenomenon that has been limited to case reports.
- Mastisol is a liquid adhesive consisting of ethanol, acetone, methyl salicylate, gum mastic, styrax and water is used similarly to benzoin-containing tinctures and Dermabond for achieving wound closure in place of sutures or staples

Case Report

- An eleven-year-old female was planned to undergo complex reconstruction of the left lower extremity for severe deformity related to her CMT disease. The patient had a sciatic perineural catheter placed via a popliteal fossa approach
- An epidural catheter with stylet was placed via 17G Tuohy needle adjacent to the left sciatic nerve at the popliteal fossa under ultrasound guidance. A single droplet of Dermabond was applied around the catheter insertion site and Mastisol along the lateral left leg.
- Post op day 5, the patient’s mother described the gradual appearance of a maculopapular rash with sporadic vesicles, some of which had eroded and had been accompanied by yellow crusting surrounding the catheter insertion site.



Discussion

- Contact dermatitis (CD) in an inflammatory skin disease caused by some external source and is further divided into allergic CD (ACD) and irritant CD (ICD). In differentiating between the two causes, with ICD there are no immune reactions and dermatitis is caused by a direct offending source (e.g., UV radiation).

- ACD is mediated by immune reactions and classified as a delayed hypersensitivity reaction (type IV) requiring prior sensitization to the offending allergen.
- ACD is characterized by consistent features with several different clinical phases. Initially, an erythematous phase with unsharply delineated erythema characterized by erosions and moistening occurs, with the next phase having crusts appear. This essentially was the exact presentation of our patient in this case report.

Conclusion

- Although rare, there have been case reports describing Mastisol-related ACD, with the potential for cross reactivity with similar allergens including fragrances, balsam of Peru, colophony, and tea tree oil. Overall, this case report details the rare reaction and presentation of ACD due to Mastisol liquid adhesive used during perineural catheter placement.

References

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