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Beyond Challenges, Towards Healthier Kidney

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Allergic Contact Dermatitis Induced by Topical Anesthetic Cream in a Hemodialysis Patient: A Case Report

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Case Study : An 80-year-old female with autosomal dominant polycystic kidney disease underwent right brachioaxillary arteriovenous graft placement in August 2020 and initiated hemodialysis in January 2021. In December 2023, she began applying a topical anesthetic cream containing lidocaine and prilocaine before each dialysis session. In December 2024, erythema and rough skin appeared over the vascular access site. Initially, the antiseptic used for cannulation was changed; however, symptoms progressed to erythema, pruritus, scaling, and exudation (Fig.1). As the skin lesion corresponded to the areas where the topical anesthetic cream was applied, it was suspected of allergic contact dermatitis caused by the cream. Following the discontinuation of topical anesthetic cream, treatment with a topical steroid ointment for two days and dexpanthenol ointment for one week led to rapid clinical improvement (Fig.2). Although cutaneous adverse effects of topical anesthetic cream are rare, cases of allergic contact dermatitis in hemodialysis patients have been reported. The components (e.g., lidocaine, prilocaine) in these creams, commonly used by hemodialysis patients for needle insertion pain relief, can act as sensitizers. Prilocaine, in particular, has been identified as a major allergen responsible for contact dermatitis. In this case, prolonged use of topical anesthetic cream on inflamed skin likely enhanced antigen presentation, increasing the risk of sensitization. This case highlights the necessity of vigilance when using topical anesthetics in hemodialysis patients who frequently apply them over vascular access sites. Management includes cessation of the offending agent and appropriate topical therapies for allergic contact dermatitis. Given the widespread use of topical anesthetic cream among hemodialysis patients, awareness of this potential adverse reaction is crucial. Early recognition and diagnosis are essential to maintaining healthy arteriovenous access.

Fig1.jpg

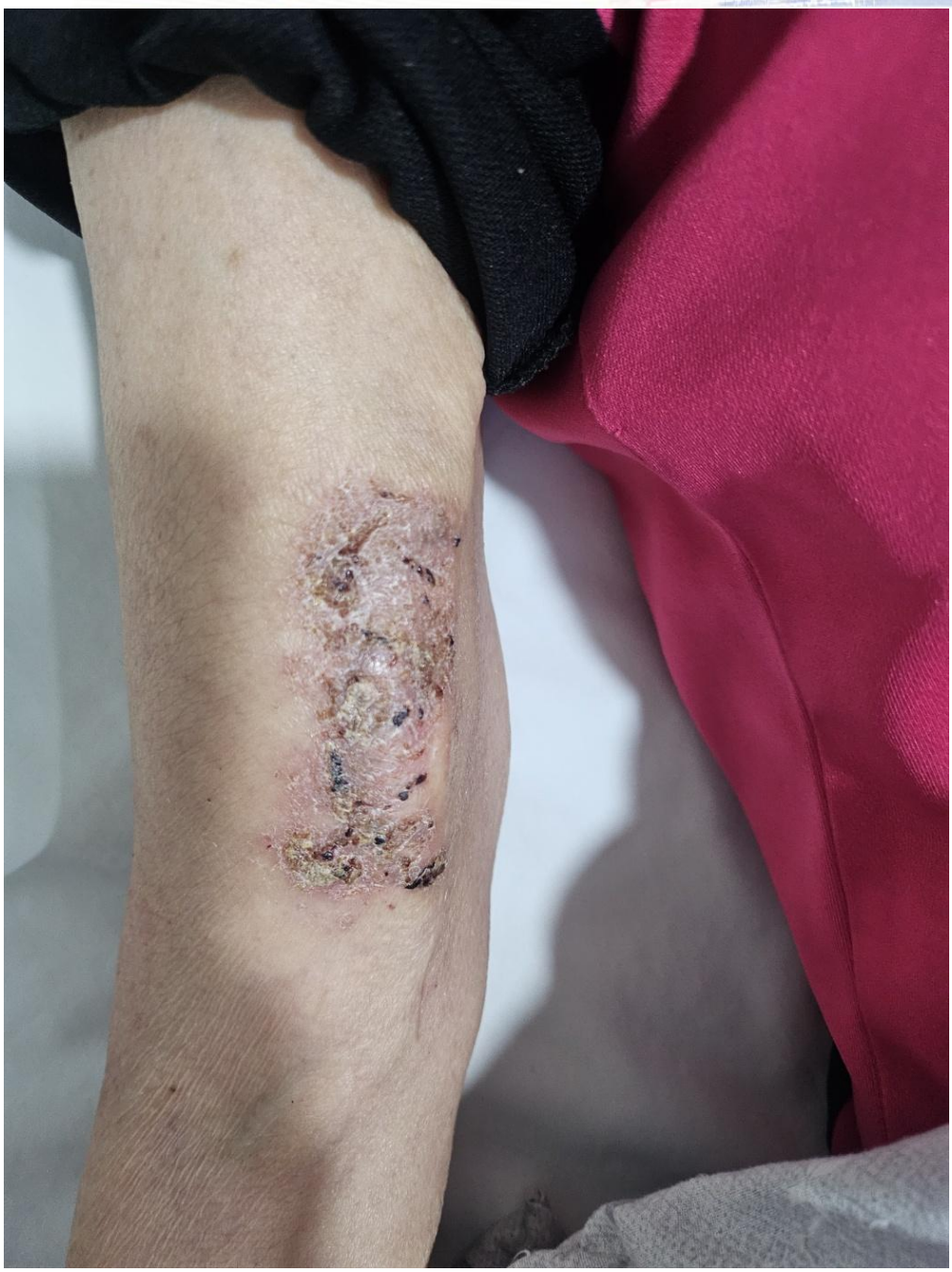

Fig1.jpg


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