

Medical adhesive–related injury to the eyelid of the fellow eye: a case report

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Abstract

We describe a case of medical adhesive–related skin injury to the eyelid of the fellow eye and its immediate management in an older man, as well as the preventive measures.

Key words: Adhesives; Eyelids

Introduction

Medical adhesive–related skin injury (MARSİ) is a complication caused by adhesive medical products, frequently involving thin and fragile skin such as the eyelids.^{1,2} Age-related skin thinning and skin fragility can increase the risk of epidermal stripping and skin tears, particularly among older adults.³

During routine ophthalmic operations, the fellow eye is often taped to avoid confusion with the eye being operated on and to prevent corneal abrasion caused by the overlying drape, especially when the patient is anesthetized. During drape removal after the surgery, the fellow eye is at equal risk of MARSİ as the operated eye.^{4,5} We describe a case of MARSİ on the eyelid of the fellow eye and its immediate management in an older man, as well as the preventive measures.

Case presentation

In January 2025, a 70-year-old man underwent vitrectomy under general anesthesia for epiretinal membrane in the left eye. He had dry skin and routinely used moisturizers. Before surgery, the right eyelid was taped closed with

medical adhesive (3M Kind Removal Silicone Tape). After approximately 45 minutes of surgery on the left eye, the draping was peeled off carefully, in consideration of the dry skin. However, the epidermis of the right upper and lower eyelids came off with the adhesive, with oozing from the abrasion site. Drape removal was paused, and the adhesive was carefully removed with a pair of forceps to prevent further abrasion (**Figure**). A flap of epidermis remained attached at one end. The flap was carefully trimmed, and a moist gauze and an overlying eye shield were applied over the area. The patient was assessed by a dermatologist and treated with paraffin gauze (to moisten the skin), mupirocin ointment (to prevent secondary bacterial infection), and mometasone furoate ointment (to reduce local inflammation).

The wound was cleaned, and a new paraffin gauze was applied daily for 3 days until re-epithelialization was observed. Mupirocin ointment and mometasone furoate ointment were used for 2 weeks until the eyelid lesion had healed. At the 12-week follow-up, no visible scarring or pigment changes were observed.

Discussion

Our case illustrates the importance of immediate and proper care in achieving full recovery and the multispecialty approach to optimize treatment and patient satisfaction, especially when potential medicolegal consequences may arise.

Eyelids are especially susceptible to MARSİ, because they are the thinnest skin in the human body.^{1,3} They lack collagen and elastin, which are proteins that provide structure and elasticity to the skin. Older people are particularly susceptible to MARSİ due to skin atrophy, decreased elasticity, and slower wound repair processes.



Figure. (a) Forceps carefully removing the adhesive to prevent further abrasion; (b) skin injuries to the right upper and lower eyelids, with the abraded epidermis flap attached to the eyelid at one end; (c) paraffin gauze to moisten the injured skins; (d) the healing skin wounds after 2 weeks of proper wound care; and (e) no residual scarring or pigmentary changes of the eyelid after 12 weeks.

To prevent MARSIs, medical professionals should always be alert for high-risk patients, such as those aged >60 years with pre-existing dermatological conditions or dry skin. Skin should be inspected before adhesives are applied. In high-risk patients, hypoallergenic and low-tack adhesives (such as the 3M Kind Removal Silicone Tape) should be used, and patients should be warned of the possible risk of MARSIs. Additionally, skin-barrier products may be applied to reduce the risk.

Care should be taken during adhesive removal. Skin should be moistened before removal; adhesives should be removed slowly; and the adjacent skin should be supported to minimize traction. Allied health professionals should be trained in the proper application and removal of clinical adhesive products.

Contributors

All authors designed the study, acquired the data, analyzed the data, drafted the manuscript, and critically revised the manuscript for important intellectual content. All authors had full access to the data, contributed to the study, approved

the final version for publication, and take responsibility for its accuracy and integrity.

Conflicts of interest

All authors have disclosed no conflicts of interest.

Funding/support

This study received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Data availability

All data analyzed in this study are available from the corresponding author upon reasonable request.

Ethics approval

The patient was treated in accordance with the tenets of the Declaration of Helsinki. The patient provided written informed consent for all treatment and procedures and for publication.

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