



Correspondence

**Skin flap-like wounds debridement considerations:
What to do in Emergency Department**


Dear Editor,

We have carefully read the article by Qiu et al. [1] published in American Journal of Emergency Medicine. We would like to acknowledge the authors for the evidence presented and also thought that some issues should be addressed.

The management of flap-like wounds is a frequent problem at the Emergency Department. There is scarce available bibliography about the optimal manner to manage this kind of wounds. This leads to an action based on individual experience and “common sense” when adopting a conservative or aggressive attitude in initial attention.

Frequently, in flap-like wounds located in functional or aesthetic areas, the most widespread attitude is to be more conservative at the initial moment, reevaluating the situation after a few days. However, based on the evidence from the study, do the authors believe that a flap-like wound with several factors of poor prognosis of the exposed should be handled more aggressively from the initial assessment in the Emergency Department? Also, do any of the factors imply a change in therapeutic management over others?

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Reference

- [1] Qiu D, Wang X, Wang X, Jiao Y, Li Y, Jiang D. Risk factors for necrosis of skin flap-like wounds after ED debridement and suture. *Am J Emerg Med* 2019 May;37(5):828–31. <https://doi.org/10.1016/j.ajem.2018.07.049>.

Reply: Skin flap-like wounds debridement considerations: What to do in emergency department


Sir:

Our article entitled “Risk factors for necrosis of skin flap-like wounds after debridement and suture in the emergency room” published in American Journal of Emergency Medicine, presented therapeutic management of flap-like wounds with some plastic surgical techniques. We appreciate the careful review of our work and hope to offer clarification on the questions raised by the readers.

First, the characteristic of a flap-like wound is determined by its configuration. These special wounds are characterized by discontinuity and damage to the structure of soft tissue, with one side of the tissue connected to the wound base by a pedicle and the remaining tissue detached. In some cases, the blood supply of the narrow flaps was quite tenuous because it derived perfusion from the intact dermal attachment. To avoid secondary operation, we insist the narrow tenuous flap should be excised when the surrounding soft tissue is sufficient.

Second, “trap door deformity” after wound healing is another crucial factor that we should take into consideration in primary care [1]. These unfavorable lumpy deformities are often produced by the formation of elevations of U-shaped flaps, and the flaps have been created when the striking force is not perpendicular. With the day going on, the

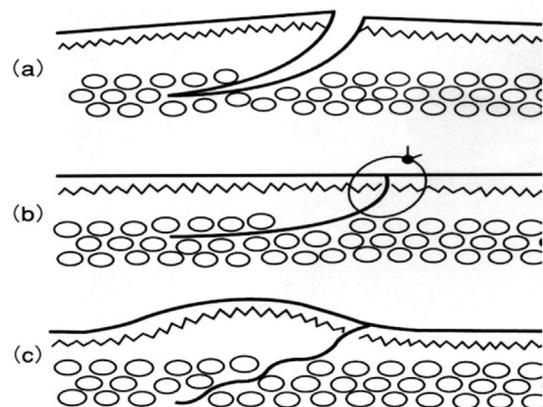


Fig. 1. The formation of “trap door deformity”. (a) A U-shaped flap was created when the striking force was not perpendicular; (b) the beveled wound was managed with simple interrupted percutaneous sutures; (c) “Trap door deformity” formed after healing.

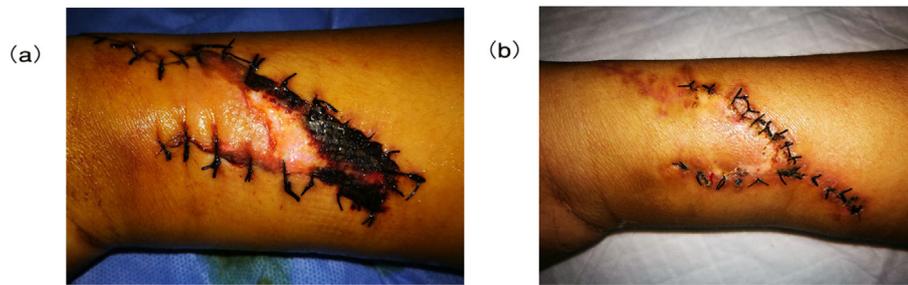


Fig. 2. Typical case. (a) The tip of a U-shaped flap-like wound was necrotic; (b) the V-Y closure technique was used to repair a necrotic flap.

subcutaneous scar of beveled edges contracts, leaving the flap elevated above the surrounding skin (Fig. 1). Therefore, we advise the beveled edges be excised to equalize the wound on this occasion.

Third, when the wounds occurred in functional or aesthetic areas, the widespread attitude is to be more conservative at the initial moment. This principle works for most cases. However, if a large thin flap is equipped with poor vascular perfusion and little contusion, we suggest that the subcutaneous tissues under the flap should be removed and the skin should be replanted *in situ* with pressure bandaging. In such situation, it is risky to adopt a conservative attitude because secondary skin grafting will result in additional damage to the donor site if flap necrosis occurred during the period of waiting to reevaluate.

Fourth, whether a flap-like wound should be handled more aggressively from the initial assessment depends on the perfusion of flap. Also sufficient surrounding soft tissue should be considered. We need to evaluate the benefits or risks of both conservative and aggressive attitude. Fig. 2 shows a case with a necrotic flap. A 20-year-old man presented with a 1-hour history of an injury on his forearm caused by a sharp instrument. The reverse wound flap was approximately $3 \times 10 \text{ cm}^2$ in area and was simply sutured conservatively without any special treatment. The flap tip necrosis occurred 5 days after surgery. The V-Y closure technique was performed to repair the remaining triangular wound after the necrotic tissue removed. The lesson: tenuous flap tip should be excised carefully in primary care.

In conclusion, the goal of our article was to expound the characteristics of common flap-like wounds and analyze the causes of flap necrosis. Thank you for allowing us the opportunity to clarify our points.

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The authors have no financial interest to declare in relation to content of this communication.

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Reference

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Anisocoria and diagnostic applications of pilocarpine – An eye opener



The article by Kokulu et al. [1] is interesting and informative from the point of patient safety and medical errors. We would like to mention the diagnostic applications and limitations of pilocarpine to differentiate anisocoria at the bedside.

Sudden onset of unilateral dilatation of pupil (anisocoria) invariably indicates an impending life threatening neurosurgical emergency especially in those cases who are unconscious/comatose, sedated or paralyzed, and at times with abnormal mental status [2]. However, it may not be an alarming one, if noticed or observed as an adverse effect of drugs such as ipratropium bromide.

It has been suggested that instillation of pilocarpine eye drops of varying strength at the bedside helps to differentiate the anticholinergic effects of drugs from other conditions causing an abnormally dilated pupil [3]. However, in an elderly patient presenting with mydriasis and a history of chronic topical sympathomimetic use, the pharmacologic testing with pilocarpine is likely to complicate the diagnosis. This is because the mydriasis caused by this agent is predominantly due to direct sympathomimetic effect on the pupil dilator rather than a parasympathetic effect of the pupil constrictor [4]. Moreover, in botulinum toxin poisoning administration of pilocarpine (1%) causes toxic pupil to constrict through presynaptic inhibition of acetylcholine release by the neurotoxin [5].

Assessment of pupil and its response to pilocarpine eye drops shall be discussed during clinical rounds so as to differentiate one condition from another, and before making statements or subjecting patients to expensive investigations. Moreover, it is suggested that assessment of pupils shall be included as one among the vitals, and the students and practitioners shall be trained and tuned to monitor pupillary response regularly in medical emergencies.

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