Management of eyelid and medial canthus necrotising fasciitis using laissez-faire technique

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DESCRIPTION
A man in his 30s presented to ophthalmology outpatient department with gradual swelling of the right eyelids and adjacent skin. Except for a single episode of fever 10 days ago, no history of trauma, surgery, sinus disease or systemic disease could be elicited. On examination, the best corrected visual acuity in both eyes was 6/9. No abnormality was detected on pupils, funduscopy and ocular movement examinations. A black crust with purulent, inflamed but non-tender, indurated edges, was noted over the eyelids and medial canthus (figure 1A). A clinical diagnosis of periorbital necrotising fasciitis was made, and the patient underwent prompt surgical debridement under the cover of broad-spectrum intravenous antibiotics (ceftriaxone 1 g 12 hourly and amikacin 400 mg 12 hourly) (figure 1B). Intraoperatively, pre-septal soft tissues including skin and underlying orbicularis were found involved. Samples for aerobic, anaerobic and fungal blood cultures were collected prior to starting antibiotics. Daily wound care with slough removal from the wound base, excision of new necrotic skin at the margins and wound dressing with gauze soaked in povidone iodine and amikacin were done for three consecutive days. Pus smear revealed gram-positive cocci in bunches. However, there was no growth seen in culture from blood and tissue samples. The patient improved after surgical debridement and was discharged on oral antibiotics (amoxicillin 500 mg + clavulanic acid 125 mg, three times a day for a week). At 6-month follow-up, the wound had been replaced by a mature scar (figure 1C) with minimal lagophthalmos (figure 1D). He was counselled regarding the requirement of a possible skin graft procedure on follow-up, in the event of wound contracture.

Necrotising fasciitis is a rapidly fulminant, avascular necrosis or soft tissue melting, caused by bacterial infection along tissue planes. Associated pathological changes include gangrene where gram-positive cocci lead to irreversible ischaemic necrosis. Clinically, this is initially a painful condition but later with necrosis and dead tissue, all sensations are lost. Therefore, a progressive loss of pain and sensation indicates worsening of the necrosis. The crust, eschar and dead tissue mask the continued bacterial proliferation and progressive necrosis underneath. Like the present case, no definite risk factors may necessarily be elicited. However, common risk factors include trauma, old age, diabetes mellitus, male gender, intravenous drug use, etc. Necrotising fasciitis is mostly witnessed in the extremities, torso, and rarely in the head and neck region due to the rich tissue vascularity in these regions. Diagnosis can be challenging and requires a high level of suspicion because the clinical signs and symptoms are often subtle initially. The mainstay of treatment in cases of necrotising fasciitis remains complete surgical debridement of the dead tissue, without an anaesthetic drug, and under the cover of broad-spectrum antibiotics. The laissez-faire technique...
of healing by secondary intention, which has been classically described as a simple, inexpensive and effective technique for medial canthal defects, helped in the complete healing of the lesion in our case.

Correction notice This article has been corrected since it was published online. The affiliation state has been corrected to "Bilaspur, Himachal Pradesh".

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Case reports provide a valuable learning resource for the scientific community and can indicate areas of interest for future research. They should not be used in isolation to guide treatment choices or public health policy.

REFERENCES