To the editor: We conducted an emergency department (ED)-based randomized, double-blind trial comparing topical 0.4% amethocaine with saline in the outpatient management of corneal trauma (Management of Ocular Trauma in Emergency [MOTE] Trial).[1] Twenty-two adults with uncomplicated traumatic, foreign body, or welding flash–related corneal superficial injury were randomly allocated to amethocaine, whereas 25 received placebo. Our findings are similar to those of Ball and colleagues, who found outpatient use of dilute topical proparacaine for acute corneal injury to be associated with analgesic efficacy while avoiding adverse effects (5-day follow-up).[2] In addition to the analgesia achieved with amethocaine, no clinically or functionally significant adverse sequelae difference (in terms of ongoing pain or visual disturbance, unscheduled medical review, and patient satisfaction) was discerned between either patient group even at the 2-week telephone follow-up. This suggests that a topical anesthetic is probably safe to use for acute corneal injury. This is particularly reassuring given the previously suggested concerns of delayed epithelial healing and local toxicity associated with prolonged or excessive use of topical anesthetic agents.[3]

There is no convincing evidence that topical antimicrobial chemoprophylaxis reduces the risk of secondary infection in patients with corneal abrasion.[4] Topical antibiotics such as the floxacins used by Ball and colleagues[2] may delay epithelial healing after photorefractive keratectomy.[5] The MOTE Trial,[1] the only other ED-based clinical trial of topical anesthesia to treat corneal injury, found no secondary infection at 36 to 48 hours and 2-week reviews in adults who were not prescribed or did not use topical antimicrobial chemoprophylaxis after sustaining corneal trauma. In view of the paucity of evidence of clinical or prophylactic benefit and the inconvenience and cost of administering additional eye drops or ointment, it remains debatable whether topical gatifloxacin, such as that used in Ball and colleagues' study protocol,[2] could be implied to be recommended for ED clinical practice.

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