

**IMAGES IN EMERGENCY MEDICINE**

## Airway

**Odynophagia after celebrating Independence Day**
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Email: [andrew.talbert@health.slu.edu](mailto:andrew.talbert@health.slu.edu)**1 | PATIENT PRESENTATION**

An 18-year-old female presented to the emergency department (ED) with complaints of worsening dysphagia, odynophagia, and hoarseness. This began ≈28 hours prior, after a reported Roman candle was accidentally discharged into her mouth by a friend while celebrating Independence Day. She described immediate pain, bleeding, burning in her throat, and subsequently expelled a foreign body. Physical examination was remarkable for an upper lip burn, 1-cm tongue laceration, scattered erythema with eschar to left soft palate (Figure 1), and a raspy/breathy dysphonia. Computed tomography neck without contrast demonstrated a hypodensity of the left aryepiglottic fold. Flexible laryngoscopy by otolaryngology revealed edema and sloughing of left arytenoid complex with mild interarytenoid edema (Figures 2 and 3).

**2 | DIAGNOSIS****2.1 | Oro-laryngopharyngeal firework injury****3 | DISCUSSION**

Intravenous corticosteroids, antibiotics, and oxygen were administered. Patient was admitted to inpatient otolaryngology for airway monitoring. Despite the presence of laryngeal edema, she remained stable throughout observation. She was discharged 12 hours later as symptoms improved.

Emergency departments in the United States see ≈5000 persons annually for fireworks injuries, most commonly involving the hands and face.<sup>1</sup> Isolated airway burns are rare; however, there are multiple reports of oral explosions resulting in significant maxillofacial trauma

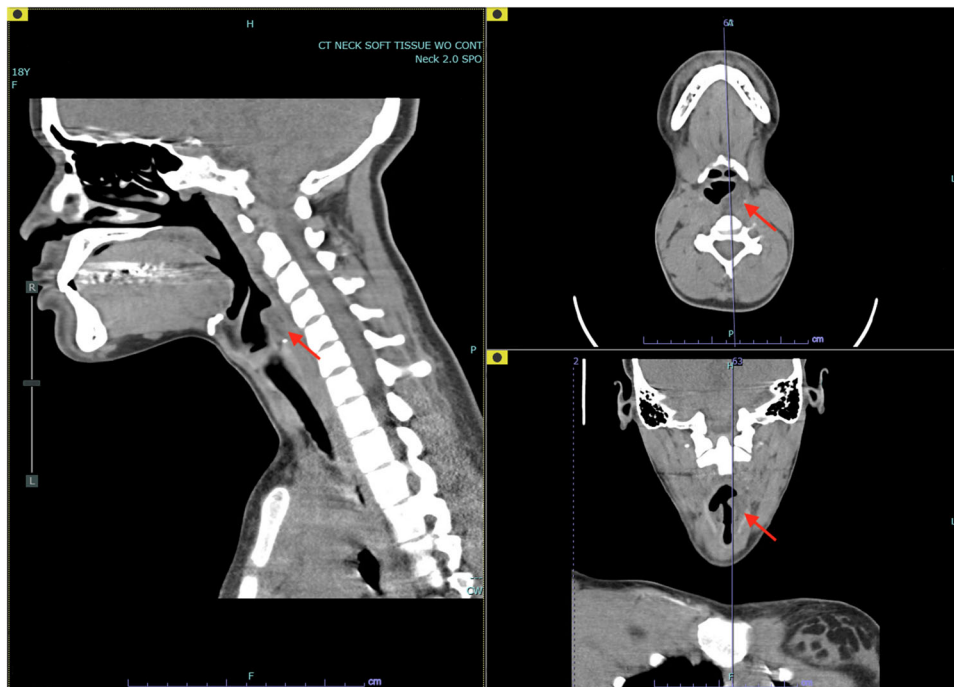


**FIGURE 1** Burn to upper lip (white arrow), 1-cm laceration to tongue (black arrow), scattered erythema with eschar to left soft palate (black star)

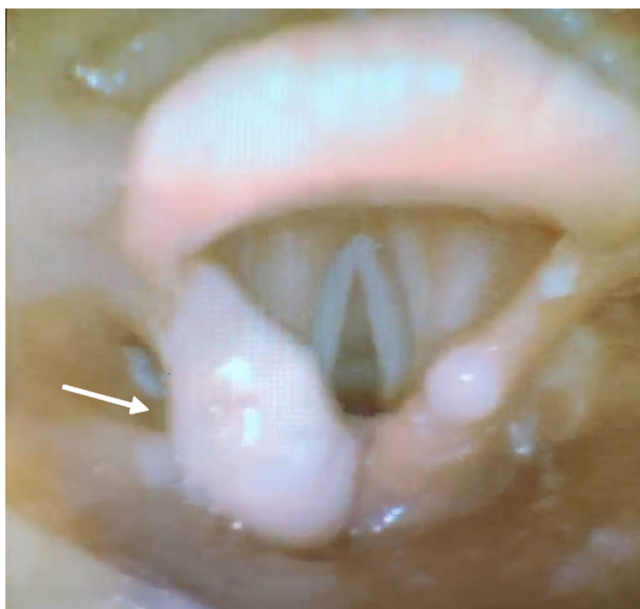
requiring definitive airway protection.<sup>2-4</sup> Previous literature has outlined the importance of early intervention, especially in patients with laryngoscopic findings of edema.<sup>5,6</sup> In this case, close observation and conservative medical management was sufficient for an isolated laryngopharyngeal burn with delayed presentation. Firework injuries are more common around major holidays,<sup>1,7</sup> and access-restricting legislation is effective in reducing firework injuries.<sup>8,9</sup>

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**FIGURE 2** Left aryepiglottic fold thickening (red arrows)



**FIGURE 3** Edema and mucosal sloughing of left arytenoid-complex with mild interarytenoid edema (white arrow)

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