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Small but serious risk of perioperative steroid use

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Prophylactic steroid administration is used to prevent airway complications, such as post-extubation laryngeal edema, and to reduce the need for reintubation [1,2]. In this issue, Lee et al. [3] show that topical steroid gargle with 0.05% dexamethasone solution is effective at lowering the severity of postoperative throat discomfort. Preoperative steroid loading is also regarded as essential for managing patients with adrenal insufficiency undergoing surgery [4]. Steroid is frequently used to prevent postoperative nausea and vomiting, a common postoperative complication. Steroid also seems to reduce postoperative pain by modulating anti-inflammatory mediators and the systemic physiological response [5].

Definitive conclusions regarding the effectiveness of perioperative steroid therapy might be precluded by the variability in surgical procedures [6,7]. However, we also need to consider the negative effects of using steroid. Even a single perioperative dose of steroid can be associated with serious side effects [8].

The case report by Kim et al. [9] in this issue shows that the injection of triamcinolone 40 mg to a lumbar nerve root for managing back pain could lead to the rapid development of a central nervous system infection in an immunocompromised patient. This steroid-induced complication progressed to meningitis and, ultimately, to diffuse leptomeningitis. If a lumbar nerve root steroid injection [10,11] is indicated or considered, the clinician must be concerned with possible serious complications such as bleeding, inflammation, or infection.

Despite a lack of supporting evidence, serious side effects of steroid therapy and their impact on the surgical outcome should be included as part of the evaluation of the risks and benefits of steroid therapy.

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