

Managing Post Operative Nausea and Vomiting and Perineal Itching: A Slow and Steady Solution

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Dear Editor,

Following surgery, approximately 45% of patients encounter postoperative nausea and vomiting (PONV). To alleviate this discomfort, dexamethasone, a synthetic glucocorticoid, is administered at induction of anaesthesia.¹ However, this can lead to perianal itching in awake patients. Bindra et al. (2022) have reported that perineal pruritus and a burning sensation following dexamethasone administration typically last 60 to 90 seconds. Female patients more commonly experience these side effects in their postovulatory or postmenopausal stage.² Importantly, these unwanted effects occur immediately after intravenous bolus injection of dexamethasone. Therefore, it is crucial to develop comprehensive approaches that effectively manage both perineal itching and PONV, thus improving patient comfort and post-procedural outcomes.

Furthermore, perineal pruritus has been observed in other clinical scenarios where dexamethasone is used, such as in chemotherapy as an antiemetic, in maxillofacial surgeries as an anti-inflammatory agent, and in treating cranial injuries. The exact mechanism of dexamethasone-induced pruritus is unclear. Still, it is hypothesized that corticosteroid phosphate esters, specifically dexamethasone sodium phosphate in the cases studied, may be responsible for the perineal pain and irritation. Similar perineal irritation has been reported using hydrocortisone-21 phosphate sodium and prednisolone phosphate. The frequency and intensity of the burning sensation and itching correlate directly with the concentration of organic phosphate in the bloodstream. However, these symptoms are transient and usually resolve spontaneously.³

To mitigate the discomfort caused by the intravenous administration of dexamethasone, a promising approach involves diluting the drug in 50 ml of normal saline and extending the administration time to 5 to 10 minutes.⁴ This method reduces the concentration of

dexamethasone, thereby minimizing its impact on sensory nerves and reducing the intensity of adverse symptoms. Slowing down the infusion rate by extending the administration time also helps to decrease the abruptness of drug exposure, alleviating pruritus, itching, pain, and burning sensations.

Dexamethasone has shown efficacy in treating postoperative nausea and vomiting (PONV). Yet, it may induce transient perineal pruritus and a burning sensation. Perineal itch resulting from dexamethasone use may be frequently underestimated due to patients' reluctance to disclose such an unfavourable outcome. A gradual administration of diluted dexamethasone solution, coupled with patient education and increased awareness among healthcare practitioners regarding perineal itch caused by dexamethasone administration, can alleviate this condition's distressing and incapacitating aspects. However, additional research is required to determine the efficacy and safety of these interventions.

Declarations of conflict of interest:

None declared.

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