

# Oral Flurbiprofen Spray for Posttonsillectomy Pain

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## Abstract

**Objective.** Tonsillectomy is still one of the most common surgical procedures, but there exists no standard guideline for pain management after tonsillectomy. Our aim is to determine whether oral spray of flurbiprofen reduces pain and has an influence on other morbid outcomes following tonsillectomy.

**Study Design.** Prospective, double-blind, randomized, placebo controlled.

**Setting.** Patients at Ataturk Training and Research Hospital, Ankara, Turkey.

**Subjects and Methods.** This study was performed on 84 patients (45 in flurbiprofen group, 39 in placebo group) who underwent tonsillectomy. The patients were randomly chosen, and each used oral spray of flurbiprofen 3 times daily or placebo solution at the same regimen. Efficacy was assessed by changes in Numeric Pain Rating Scale. Data were collected at postoperative days 1, 3, 5, and 7 for pain, bleeding, and healing. Data for Mallampati scores were also collected.

**Results.** There were no significant difference between groups with respect to the demographic data. The flurbiprofen group had statistically significant lower pain scores at days 1, 3, 5, and 7 ( $P = .000$ ,  $P = .002$ ,  $P = .001$ ,  $P = .000$ , respectively). On days 3 and 7, pain scores were significantly different between different Mallampati groups ( $P = .049$ ,  $P = .015$ , respectively). The flurbiprofen group required less analgesic than the placebo group during the study period on days 1, 3, 5, and 7 ( $P = .001$ ,  $P = .001$ ,  $P = .03$ ,  $P = .001$ , respectively). Healing and side effects were not significantly different between the groups.

**Conclusion.** In this study, topical use of flurbiprofen may reduce posttonsillectomy pain without any evidence of additional complications.

## Keywords

flurbiprofen, tonsillectomy, pain, topical

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Tonsillectomy is a common procedure that may cause considerable postoperative pain, especially in adults. In spite of the advances in surgical and anesthetic techniques, the cause of morbidity is still oropharyngeal pain after tonsillectomy, which may result in decreased oral intake, dysphagia, dehydration, and weight loss.

In general, there are 3 commonly used treatments for management of pain after tonsillectomy: opioids, nonsteroidal anti-inflammatory drugs (NSAIDs), and acetaminophen. Opioid analgesics may cause respiratory depression, especially in individuals with obstructive sleep apnea. Acetaminophen may not be strong enough for posttonsillectomy pain. Although the Cochrane Collaboration concluded that NSAIDs can be safely used for the postoperative treatment of pain following tonsillectomy, their use after tonsillectomy has been controversial because of adverse effects on platelet function that may prolong bleeding time.<sup>1</sup> To avoid potential side effects of NSAIDs, topical use of local anesthetics has been proposed, which also have controversial results.<sup>2-4</sup> However, no studies were found in the literature evaluating the efficacy of an oral spray form of a NSAID after tonsillectomy.

Oral spray of flurbiprofen has been approved for adults and children >12 years old for treatment of tonsillitis pain in Turkey; however, it was not previously used for the purpose of posttonsillectomy pain.

The goal in posttonsillectomy pain management is to mobilize the person, to initiate appropriate oral intake as soon as possible, and to reduce the risk of postoperative bleeding. In this prospective randomized double-blind study, we assessed the clinical efficacy of oral spray of flurbiprofen, which is a member of NSAIDs, in reducing posttonsillectomy pain and morbidity.

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