

Can Honey be Used as an Adjunct in Treatment of Post Tonsillectomy Pain?

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Dear Editor,

Tonsillectomy remains one of the most frequent surgical procedures performed worldwide within ear, nose and throat (ENT) field. Despite significant improvements in anesthetic and surgical techniques, severe pains remain a major clinical problem after tonsillectomy (1, 2). Post tonsillectomy pain may lead to poor oral intake, dehydration, increased risk of hemorrhage and delayed recovery after this procedure (1, 3, 4). Therefore, adequate pain management is important in these patients to prevent potential complications associated with ineffective postoperative pain control (1). Several studies with different results attempted to determine the best methods for pain control in these patients, using wide spectrum of analgesics, such as paracetamol, opioids and non-steroidal anti-inflammatory drugs (NSAID) (2, 5). Despite advantages of these commonly used medications, they can actually increase the risk of postoperative complications. Therefore, the potential adverse effects of these analgesics, such as postoperative nausea and vomiting, respiratory depression and bleeding need to be considered (5, 6). As a result, an analgesic without aforementioned complications would play an important role in managing of patients undergoing tonsillectomy (5). However, no optimal treatment in terms of efficacy and adverse effects has still been developed for post-tonsillectomy pain (7).

Since ancient times to present, honey is used for medicinal purposes due to its biological activity and therapeutic properties (7, 8). Among these properties, the antinociceptive activity of honey has been shown in mice (9). A review study about using of honey in otorhinolaryngology, has stated that the use of honey can decrease overall cost of treatment (10). A study by Ozlugedik et al. demonstrated that oral administration of honey following pediatric tonsillectomy can relieve postoperative pain and decrease the

need for analgesics in first two days after surgery (1). Other study conducted by Boroumand et al. has shown that the patients who received acetaminophen plus honey versus control group (who received only acetaminophen), had significantly less pain severity and analgesic consumption within the first three postoperative days (7). Letchumanan et al. has shown in their study that there are no significant differences in terms of pain relief and wound epithelization between the honey and placebo groups. Although as the authors mentioned, lack of differences between the groups may be due to inappropriate placebo (2). One of the most important adverse effects related to the use of honey in infants younger than one year old, is the risk of botulism; whereas there are no reported cases of botulism in older people than this age following the ingestion or topical application of honey (10).

In summary, considering the importance of pain management after tonsillectomy and potential benefits of honey as an easy to use and low cost adjuvant, it seems that the use of honey can decrease the postoperative pain, need for analgesics and overall cost of treatment after the first year of life, and may increase the patients' satisfaction. However, further well-designed randomized controlled trials are needed to confirm the safety and efficacy of honey as an adjunct remedy for post tonsillectomy pain.

Authors' Contributions

All authors were included in the preparation and writing the manuscript.

References

1. Ozlugedik S, Genc S, Unal A, Elhan AH, Tezer M, Titiz A. Can post-

- operative pains following tonsillectomy be relieved by honey? A prospective, randomized, placebo controlled preliminary study. *Int J Pediatr Otorhinolaryngol.* 2006;**70**(11):1929-34.
- Letchumanan P, Rajagopalan R, Kamaruddin MY. Posttonsillectomy pain relief and epithelialization with honey. *Turk J Med Sci.* 2013;**43**(5):851-7.
 - Messner AH, Barbita JA. Oral fluid intake following tonsillectomy. *Int J Pediatr Otorhinolaryngol.* 1997;**39**(1):19-24.
 - Sarny S, Habermann W, Ossimitz G, Stammberger H. Significant post-tonsillectomy pain is associated with increased risk of hemorrhage. *Ann Otol Rhinol Laryngol.* 2012;**121**(12):776-81.
 - Hamunen K, Kontinen V. Systematic review on analgesics given for pain following tonsillectomy in children. *Pain.* 2005;**117**(1-2):40-50.
 - Moiniche S, Romsing J, Dahl JB, Tramer MR. Nonsteroidal anti-inflammatory drugs and the risk of operative site bleeding after tonsillectomy: a quantitative systematic review. *Anesth Analg.* 2003;**96**(1):68-77.
 - Boroumand P, Zamani MM, Saeedi M, Rouhbakhshfar O, Hosseini Motlagh SR, Aarabi Moghaddam F. Post tonsillectomy pain: can honey reduce the analgesic requirements? *Anesth Pain Med.* 2013;**3**(1):198-202.
 - Mandal MD, Mandal S. Honey: its medicinal property and antibacterial activity. *Asian Pac J Trop Biomed.* 2011;**1**(2):154-60.
 - Azim MK, Perveen H, Mesaik MA, Simjee SU. Antinociceptive activity of natural honey in thermal-nociception models in mice. *Phytother Res.* 2007;**21**(2):194-7.
 - Werner A, Laccourreye O. Honey in otorhinolaryngology: when, why and how? *Eur Ann Otorhinolaryngol Head Neck Dis.* 2011;**128**(3):133-7.

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