The Effect of Cold Vapor Applied for Sore Throat in the Early Postoperative Period

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Purpose: *This study was conducted for the purpose of determining the effect of cold vapor applied for sore throat in the early postoperative stage.*
Design: *A quasi-experimental design was used.*
Methods: *The study sample consisted of 60 patients who underwent lumbar disc herniation surgery in the Neurosurgery Clinic of Gazi University Health Research and Practice Center in Ankara, Turkey. The study involved two intervention groups and one control group. The study data were collected through questionnaire and observation forms.*
Findings: *65% (n = 39) of patients experienced sore throat. There were no statistical differences between the groups in terms of sore throat and hoarseness (P > .05); however, a significant difference was determined in the group to whom oxygen together with cold vapor was applied for dry throat (4th and 8th hours) and swallowing difficulties(8th and 12th hours) (P < .05).*
Conclusions: *Cold vapor did not have an effect on sore throat on its own; however, it decreased hoarseness and swallowing difficulties when applied together with oxygen.*

Keywords: *cold vapor, postoperative care, sore throat, research.*

TODAY, TOGETHER WITH TECHNOLOGICAL developments in surgery, advances in preoperative and postoperative patient care have led to the widespread implementation of surgical interventions.[1] Despite surgical interventions being an important treatment option in the solution of health problems, postoperative throat complaints related to intubation-based larynx and pharynx traumas

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such as sore throat, dry throat, hoarseness, and swallowing difficulties are frequently observed, especially in patients who have undergone general anaesthesia.[2] In the literature, it is reported that sore throat is frequently observed after endotracheal intubation (14.4% to 100%) and is one of the complications most feared by patients.[3-5] In another study investigating the prevalence of sore throat in the first 24 postoperative hours, sore throat was found in 26% of patients.[6]

As sore throat can lead to swallowing and breathing difficulties in the postoperative period, this influences the nutrition and fluid intake of the patient and may extend the recovery period.[2] Sore throat creates a physical source of stress, increases postoperative morbidity, and decreases patient satisfaction.[4,7] Because of all these adversities observed in the patient care process, sore throat should be evaluated and treated carefully.

Pharmacological and nonpharmacological methods are applied in the elimination of sore throat. As pharmacological methods, the use of steroids and local anesthetics in the form of mouthwashes and sprays are recommended.[8,9] As nonpharmacological methods, the selection of a smaller endotracheal tube number, lubrication of the endotracheal tube with water-soluble gel, correct performance of oropharyngeal aspiration, careful intubation, resting after intubation, and reduction of endotracheal tube cuff pressure are recommended.[3,10] In addition to these methods, ways of reducing larynx damage such as preventing throat dryness and swallowing difficulties are also considered to reduce sore throat. Thus, in the conclusion of a study conducted by Jung et al[11] on patients undergoing thyroidectomy, humidification of the throat with vapor was recommended as it was found to reduce sore throat and coughing. Furthermore, literature also supports that cold vapor is effective in reducing fever, airway inflammation, and the viscosity of secretion and could be applied in the control of larynx damage-related complaints (hoarseness, coughing, throat dryness, etc.).[12,13]

Our observations have indicated that postoperative sore throat is frequently encountered in surgical clinics; cold vapor is applied in the early postoperative period for prophylactic purposes, and patients have been relieved after this practice. However, no study was encountered in our country on cold vapor application for the purpose of relieving sore throat in surgical clinics. It is considered that cold vapor applied to patients in postoperative care will reduce pain and relieve the patient in the postoperative period.

Aim

This study was conducted for the purpose of determining the effect of cold vapor applied in the early postoperative stage on patients' sore throat.

Ethical Considerations

A written consent form was obtained from the Head Doctor's Office of the Gazi University Health Research and Practice Center and the Gazi University Clinic Studies Ethics Board (date: 28.6.2012; number: B.30.2.GÜN.0.20-4271) so that the study could be conducted. Furthermore, information was provided to patients participating in the study, and informed consent was obtained.

Methods

Study Design

This study was conducted between January and June in 2013 using a quasi-experimental design.

Setting and Participants

The study was conducted at the Neurosurgery Clinic of Gazi University Health Research and Practice Center in Ankara, Turkey. This clinic has a capacity of 28 beds and provides service to pediatric and adult patients. Medical and surgical treatments of all diseases involving the nervous system, such as intracranial, spinal, and peripheral nervous system tumors, vein diseases, such as aneurysms, arteriovenous malformation, nervous system diseases specific to childhood, congenital anomalies, spinal diseases, epilepsy, and diseases associated with head and spinal traumas are performed at the clinic. A total of 10 nurses work at the clinic on a shift system between the hours of 08.00 to 16.00 and 16.00 to 08.00.

Cold vapor is not provided to all patients as part of standard postoperative care at the clinic where the