

Throat Pack: “Friend or Foe” for Anesthesiologist

Anju Gupta¹, Riddhima Sharma¹ and Nishkarsh Gupta^{2*}

¹VMMC and Safdarjung Hospital, New Delhi, India

²DRBRAIRCH, AIIMS, New Delhi, India

*Corresponding author: Nishkarsh Gupta, Associate Professor, DRBRAIRCH, AIIMS, New Delhi, India, Tel: +91 9868398338; E-mail: drnishkarsh@rediffmail.com

Copyright: ©2018 Gupta A, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Received date: April 5, 2018; Accepted date: April 10, 2018; Published date: April 20, 2018

Citation: Gupta A, Sharma R, Gupta N (2018) Throat Pack: “Friend or Foe” for Anesthesiologist. J Anaesthesiol Crit Care. Vol 1 No.2:7.

Introduction

“I never allow a cork or any such substance being put into a patient's mouth when insensible unless it is well tied to a string, lest it be swallowed” [1].

John Snow

Throat pack has been used in surgery from time immemorial and are customary made up of soft fabric or woven gauze. Recently, polyurethane foam materials are also being used. Throat packs are used to clear the airway, avert soiling of trachea and bronchi with debris or blood and eventually allowing the surgeon an adequate access [2]. Adequate packing is one of the basic necessities for anesthesia, especially in otorhinolaryngeal surgeries [3]. It is considered as a physical barrier to the leakage of blood into the trachea, although it has been found that pharyngeal packing does not exhibit 100% protection [4]. During oral surgery blood that cannot be suctioned may flow through the oropharynx and nasopharynx and may leak past the endotracheal tube cuff into the trachea or drain into the stomach. Increasing concerns have cropped up on their difficulties of access and its requirement is often discussed with the surgeon prior starting anaesthesia [5].

Inadvertently, left throat packing can lead to catastrophic events postoperatively following extubation [6]. In one of the randomized controlled trial, done to assess the utilization of throat pack in preventing postoperative nausea and vomiting, concluded the increased incidence of post sore throat and also no effect on PONV [7].

In a study of 1480 patients, Conway et al. [8] found, high incidence of sore throat, 42% had mild sore throat and 19% had a severe sore throat due to insertion of moistened (water) pharyngeal pack. Injury to the tongue, dental damage and removal of part of the uvula has also been observed.

There is an on-going wrangle between anaesthesiologist and surgeon, having overall responsibility for the throat pack removal after surgery [9].

There exist many literatures, comparing different types of pharyngeal pack, In one such study, Marais et al. [10], found decreased incidence of post-surgical sore throat with pharyngeal

gauze is 38% compared with 15% of tampon group. In parallel to this study, another study, comparing dry and wet pharyngeal gauzes, there exist no statistical difference in the incidence rate of sore throat, nausea and vomiting following surgery [11].

In one study, the author found less incidence of throat soreness after surgery, when esophageal packing was soaked with tenoxicam (NSAIDS) [12].

The risk of leaving the pack accidentally in place after extubation can cause severe airway obstruction, there is a case in the Netherlands, in 2012 of child mortality after extubation due to a retained partial throat pack.

Various methods have been suggested in literature to prevent throat pack retention. Crawford [7] suggested leaving a length of the pack hanging outside mouth as a memorial. Others suggested, putting a label on the patient's forehead, suturing the pack and also making the pack with radiopaque material [6]. In case of missing oral pack, all effort should be made to retrieve it without jeopardizing patient safety. Furthermore, packing is neither evidence-based nor universally used during routine nasal surgeries and there exist no robust guidelines.

National Patient safety agency [13] (NPSA) issued (April 2009), a safer practice notice, regarding safe use of throat pack in clinical scenario [3] and recommended both document-based and visual check should be used in throat packing every time and document of the placement and removal. A documentary procedure should be executed [13]; a designated person should be there to record on the white board, the time of insertion and removal of the throat pack. The circulating staff should document on the surgical count record pack insertion and removal. Any change or addition in the throat packs to be clearly communicated and documented on the white board and surgical count.

There are various guidelines [13] for the prevention of retention of the throat pack post-operatively:

The clinical requirement of throat pack should be discussed between the anaesthesiologist and surgeon, also the procedure to prevent its retention.

Throat pack insertion to be verbally communicated to the surgical team by the surgeon or anaesthesiologist.

During the surgical procedure at least one visual check should be there.

There should be verbal communication between the surgeon and anaesthesiologist about the removal of the pack, at the end of the procedure.

The Procedures involving “visual checks” for the prevention of inadvertent retention of throat pack involve the followings [13,14]:

Throat pack to be securely attached to the artificial airway device, either the anaesthesiologist or surgeon who ever has taken the decision for packing should be made responsible for the attachment of the pack the airway (artificial) device. The person who is inserting the throat pack (surgeon or anaesthesiologist) should ensure correct positioning of the throat pack with one end protruding externally.

A label or mark on the patient can also be done and one person to be designated as responsible for the application of the label to the patient.

Putting the label on the anesthesia machine while inserting the pack and removing the label after the throat pack is removed.

The label should clearly identify the word “throat pack” in order to differentiate between the correct site surgery mark and throat pack mark.

“Documentary” procedure [13-16] should include formal and two person check of insertion and removal of pack. The throat pack insertion or removal can be noted on the swab board or swab count. The circulating paramedical staff should document on the white board and surgical count record any alteration or addition of the throat pack insertion by the anaesthesiologist or surgeon. Confirmation of the throat pack, removal to be assured in the recovery room.

The UK based studies [17] highlighted that; the decisiveness to insert a throat pack should be clearly justified. According to the published literature and the Australian organization United Medical Protection Publication [18], there are adequate methods available to decrease the risk of retention, but there has been less national application.

Unintended retention of a throat pack is eventually a high clinical risk and the decision to use a throat pack should be justified. Under reporting is a well-recognized fact, in patient safety incident reporting system.

Furthermore, caution can prevent adverse outcome, including the person taking overall responsibility who has inserted the pack and also prompt removal of throat pack where it is deliberately left, especially during transfer of the patient in a critical care unit, also institutional policies to be made to prevent throat pack retention including NPSA guidelines.

References

1. Snow J (1858) On chloroform and other anaesthetics; their action and administration. Reproduced in 29 instalments in the Br J Anaesth, July 1954; 26: 268-281 to August 30: 383-392.
2. Atkinson RS, LEE JA (1977) A synopsis of anaesthesia, 8th Edn, John Wright & Sons.
3. Gray TC, Nunn JF, Utting JE (1980) General Anaesthesia, 4th Edn, Gray TC, p: 1656.
4. Vickery IM, Burton GW (1977) Throat packs for surgery. Anaesthesia 32: 565-572.
5. Krwuscher H (1971) Anesthesia in otorhinolaryngology and endoscopies. In; Frey R, Hugin W, Mayrhofer O. eds. Textbook of anesthesiology and resuscitation, Springer Verlag, Berlin, pp: 766-772.
6. To EW, Tsang WM, Yiu F, Chan M (2001) A missing throat pack. Anaesthesia 56: 383-384.
7. Crawford BS (1977) Prevention of retained throat pack. Br Med J 2: 1029.
8. Conway CM, Miller JS, Sugden FL (1960) Sore throat after anaesthesia. Br J Anaesth 32: 219-223.
9. Bisase B, Matthews NS, Lan C (2011) Current practice and opinions regarding the use of oropharyngeal throat packs in the United Kingdom. J Patient Saf 7: 162-164.
10. Marais J, Prescott RJ (1993) Throat pain and pharyngeal packing: A controlled randomized double-blind comparison between gauze and tampons. Clin Otolaryngol Allied Sci 18: 426-429.
11. Fennessy BG, Mannion S, Kinsella JB, O’Sullivan P (2011) The benefits of hypopharyngeal packing in nasal surgery: A pilot study. Iran J Med Sci 180: 181-183.
12. Elhakim M, Siam A, Rashed I, Hamdy MH (2000) Topical tenoxicam from pharyngeal pack reduces postoperative sore throat. Acta Anaesthesiol Scand 44: 733-736.
13. National Patient Safety Agency (2009) Safer practice notice. Reducing the risks of retained throat packs after surgery.
14. <https://doctrinaryrcht.cornwall.nhs.uk/DocumentsLibrary/RoyalCornwallHospitalsTrust/Clinical/Anaesthetics/UseOfThroatPacksInTheatres.pdf>
15. Smith M, Turnbull D, Andrzejowski J (2012) Throat packs in neuroanaesthesia. Anaesthesia 67: 793-806.
16. Worcestershire Acute Hospitals NHS Trust (2014) Policy for reducing the risk of nasopharyngeal pack retention after surgery. Accessed from: <http://www.worcsacute.nhs.uk>
17. Knevil GJ, Blackburn CW (2008) Retained throat packs: Results of a national survey and the application of an organisational accident model. Br J Oral Maxillofac Surg 46: 473-476.
18. Alders H (2007) Case study: Retained throat packs. United Medical News.