

## Iatrogenic cause of postextubation total airway obstruction caught on camera: A case report

Madam,

Oropharyngeal throat packs (TPs) are commonly inserted during maxillofacial surgeries to protect the airway from blood, secretions, and surgical debris.<sup>[1-3]</sup> Retention of TP is a relatively common occurrence and can be fatal.<sup>[4,6]</sup>

A 42-year-old, 47 kg, American Society of Anesthesiologists physical status I, male with carcinoma of buccal mucosa was posted for debridement and repair of deltopectoral flap. He had a Mallampatti class 4 and grossly restricted neck extension [Figure 1a]. The airway was secured by awake fibroscope guided intubation with a cuffed nasotracheal tube. As it was an extraoral surgery, no oropharyngeal pack was inserted. The 7-hour surgery was uneventful, and the trachea was extubated after ensuring adequate recovery from anaesthesia. Immediately after extubation patient started having restlessness, difficulty in breathing and desaturation. We suspected airway obstruction due to incomplete recovery from neuromuscular blockade or laryngospasm as the possible cause. Since bag and mask was not effective and we inserted Laryngeal mask airway (LMA) Supreme size 3 after administering propofol. This resulted in immediate improvement of respiration and oxygen saturation (100%). When patient became conscious, LMA-Supreme was removed after thorough suctioning, but patient again started destaurating and had paradoxical respiration. This was again relieved by reinsertion of LMA-Supreme. Since, the cause of recurrent airway obstruction was not clear, we decided to intubate the patient's trachea using C-Mac videolaryngoscope. During videolaryngoscopy, to our great surprise, a blood soaked gauze pack was found in the laryngopharynx which

was removed [Figure 1b]. Subsequently, we came to know that the surgical assistant had inserted it without informing anyone.

In our case, the initial episode of respiratory distress was probably due to the TP positioned around and right over the laryngeal inlet. The placement of LMA-Supreme relieved the airway obstruction by pushing the pack into the hypopharynx. However, as the LMA-Supreme was removed, probably a part of the TP stuck under its tip was pulled back over the laryngeal inlet and caused airway obstruction again. The decision to use the C-MAC video laryngoscope proved fortuitous and helped us identify the cause and remove the forgotten TP.

The present case highlights the potentially serious consequences of lack of communication between the surgical and anesthesia teams. TPs have been placed in oral and maxillofacial surgery under general anesthesia to prevent aspiration of blood, prevent leakage of gases around the endotracheal tube (ETT), stabilize the ETT, and passage of blood into stomach.<sup>[4,7]</sup> Complications like airway obstruction due to retained TP after extubation have been reported and a number of reports have highlighted the patient safety risks associated with TPs. During insertion or removal, the TP may be swallowed by the patient, damage oral structures (the tongue, fraenum, uvula or teeth), cause airway obstruction, necessitate additional interventions for its removal, and may also lead to death of the patient due to hypoxia.<sup>[5,6]</sup>

The TP may be forgotten by the entire team because of the change of the anesthesiologist, additional packs placed during the procedure, rapid recovery of the patient, or wrong claim by the staff. In our case also TP was inserted during the course of surgery by the surgeon without communicating to the anaesthesia team. The WHO Surgical Safety Checklist mentions about ensuring things have not been left inside under "THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT" at the SIGN OUT time and highlights that the whole Team is responsible for this action. In our case, noncompliance with the WHO Checklist along with lack of communication at the time of TP insertion (between surgeon, anesthesiologist, and the two nurses) became an important reason its retention.<sup>[4]</sup>

A number of methods have been suggested to reduce the retention of TPs like attaching a suture to the TP, leaving some part of TP outside, suturing it to ETT, putting a label indicating pack insertion (patients forehead, ETT, wrist band, or machine), including the TP in the swab count, documenting



**Figure 1:** (a) The patient with carcinoma buccal mucosa posted for flap revision retained throat; (b) pack being removed during videolaryngoscopy

the placement/removal of the pack and ensuring the removal by verbal check.<sup>[4]</sup>

This case once again highlights the need to follow the WHO surgical safety list meticulously and including TP as a separate part of sponge count. It also highlights the importance of good communication and proper handing over of the cases among healthcare professionals. Finally, it may be prudent to suggest that a video laryngoscopic airway examination should be conducted in cases of unexplained respiratory distress in the perioperative period.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Nil.

### Conflicts of interest

There are no conflicts of interest.

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## References

1. Smith M, Turnbull D, Andrzejowski J. Throat packs in neuroanaesthesia. *Anaesthesia* 2012;67:804-5.
2. Parry MG, Glaisyer H, Enderby DH. Prevention of trauma associated with throat pack insertion. *Anaesthesia* 1997;52:190.
3. Sexton J, Dohlman L. Benefits of the pharyngeal pack. *J Oral Maxillofac Surg* 1989;47:891.
4. National Health Service: National Patient Safety Agency. Reducing the risk of retained throat packs after surgery- Safer Practise Notice, 2009. Available from: <http://www.nrls.npsa.nhs.uk/resources/entryid45=59853>. [Last accessed on 2018 Jun 12].
5. Crawford BS. Prevention of retained throat pack. *Br Med J* 1977;2:1029.
6. Gray H, Brett C, Worthington J. Retained throat packs represent a potentially catastrophic airway hazard. *Anaesth Intensive Care* 2006;34:119-20.
7. Royal Cornwall Hospitals NHS Trust. (2012). Guidelines for the use of throat packs in theatres. Available from: <http://www.rcht.nhs.uk/DocumentsLibrary/RoyalCornwallHospitalsTrust/Clinical/Anaesthetics/UseOfThroatPacksInTheatres.pdf>. [Last accessed on 2018 Jun 12].

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