Retained Foreign Body in the Nasal Cavity After Oral Maxillofacial Surgery

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Retained foreign bodies sometimes occur in various surgical procedures and can lead to severe complications. Foreign bodies in the oral and maxillofacial region are not rare because of the use of many small items and the natural communication with the outside environment in some areas. We experienced a case of foreign body in the nasal cavity, which was discovered 1 year later at a second operation for hardware removal after maxillofacial surgery. A small, soft material is usually placed between the nasal endotracheal tube and nostril to avoid nasal pressure ulcer at the ala of nose after prolonged anesthesia after our group's experiencing some cases of this complication. The foreign body was found in the pharynx during induction of a second anesthesia. Attention should be directed to not leaving any materials in the patient after surgery. In addition to the normal counts of sponges, needles, etc, other small nonsurgical materials used should be recorded by medical staff to help ensure nothing is retained in the patient.

Key Words: Foreign body; Nose; General anesthesia; Oral surgery.

Surgical gauzes or other surgical items sometimes become retained foreign bodies after surgery.¹⁻³ It has been reported that the incidence is 1:2,000–5:000 in operations.^{2,3} Retained foreign bodies during surgery might lead to severe complications.³ It has also been reported that the risk for retained foreign bodies is higher in emergency surgery and in obese patients.^{2,3}

Foreign bodies in the maxillofacial region are often overlooked.^{4,5} They might be missed because the materials are small and provoke minimal stimulus. We experienced a case of a retained foreign body in the nasal cavity, which was found 1 year later at a second operation.

CASE REPORT

The patient was a 19-year-old male, 154.9 cm in height and 48.9 kg in weight. He was diagnosed with mandibular prognathism, and was scheduled for bimax-

illary orthognathic surgery involving bilateral sagittal split mandibular setback osteotomy and LeFort I maxillary advancement under general anesthesia. Nasal endotracheal anesthesia using a RAE tube with internal diameter 7.0 mm (Portex Ltd, Hyth, Kent, UK) was accomplished using a conventional laryngoscope. Then, a soft material (Cica Care, Smith and Nephew, Hull, UK) was placed between tube and nostril to help avoid alar pressure ulcer formation. After surgery, the patient was extubated after confirming sufficient spontaneous respiration. His intraoperative and postoperative course was unremarkable. He was discharged 10 days later without any discomfort postoperatively.

One year later, he underwent hardware removal in the maxilla and mandible. In preoperative assessments, he had no episodes of nasal pain or symptoms for 1 year. Laboratory studies and preoperative physical evaluation were all within normal limits.

No premedication was given. Anesthesia was induced with propofol, atropine, rocuronium, and fentanyl. After the patient lost consciousness, we checked both sides of the nasal cavity with a swab of 2% lidocaine containing 1:200,000 epinephrine. A nasotracheal RAE tube was inserted until it reached the pharynx. Upon direct visual laryngoscopy with a conventional laryngoscope with Macintosh 3 blade, we found a foreign body in the hypopharynx. We removed the foreign body, which was a clear plastic piece measuring 2.0 × 1.0 cm

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Foreign body found in pharynx from previous surgery.

(Figure). We then confirmed that there were no signs of infection, such as abscess formation in the nasal cavity, by fiberscope. The patient was smoothly intubated and the operation performed. The intraoperative and postoperative period was uneventful and he was discharged on postoperative day 5.

DISCUSSION

Surgical materials are sometimes left in the surgical site and/or somewhere in the patient during various surgical procedures.^{1–3} The incidence of foreign bodies in the maxillofacial region is unclear compared to that of abdominal and emergency surgery. Generally, foreign bodies in the oral and maxillofacial region are radiolucent and detected as radiographic findings.

Cica Care is a hydrocolloid soft material that has been used for preventing pressure ulcers at the ala of nose in cases of nasotracheal intubation, especially for prolonged anesthetics.^{6,7} The material is trimmed and placed between the nasotracheal tube and the nostril. In this case, on preoperative examination, the patient presented with no pain, nasal complaints of drainage, stuffiness, or unusual feeling for the year since the first surgery. In addition, no inflammation had been observed around the nasal cavity by fiberscope. The hydrocolloid material was found in the pharynx at the induction of anesthesia for the second surgery. We speculate that it was pushed out of the nasal cavity to the pharynx at nasal intubation.

Foreign bodies in the nasal cavity might be harmful to surrounding tissue, and might obturate the paranasal cavity, leading to sinusitis.⁸ If a patient has a painless reaction, however, they may be difficult to detect. There is a risk of aspiration into the trachea.

Patient safety is the most important aspect of anesthetic management. To prevent retention of a foreign body placed by anesthesia personnel, medical staff should be made aware of these items, and the items should be included in the surgical counts or otherwise accounted for. In addition, soft materials such as we used should, if possible, not be so small that they may be inadvertently lost in the nasal cavity.

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