Case Report

Accidental Ingestion of Nasal Packing Gauze during Endonasal Endoscopic Dacryocystorhinostomy under Local Anesthesia: A Case Report

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Keywords

Endonasal endoscopic dacryocystorhinostomy · Accidental ingestion · Nasal packing gauze · Local anesthesia

Abstract

Purpose: To report a case of accidental ingestion of a nasal packing gauze during endonasal endoscopic dacryocystorhinostomy (en-DCR) under local anesthesia. **Case Report:** A 66-year-old female patient underwent an en-DCR for a right acquired nasolacrimal duct obstruction. The surgery was performed in a supine position under local anesthesia. An X-ray detectable ribbon gauze soaked in 0.02% epinephrine was placed in the middle meatus to prevent blood and liquid from flowing into the pharynx. The same packing gauze was also used for hemostasis during the surgery. At the end of the surgery, 1 piece of gauze was missing and could not be detected by the endonasal endoscopic exploration. An abdominal X-ray image performed on the same day demonstrated the presence of the gauze in the stomach although the patient did not notice swallowing the gauze. The gauze was not there on the X-ray 1 week later. **Conclusion:** Surgeons need to be aware of accidental ingestion of a nasal packing gauze in en-DCR under local anesthesia. Keeping the gauze end out of the nostril is likely preventive for this complication. The use of X-ray detectable gauze was helpful to detect its location.

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Introduction

Gauze for nasal packing is commonly used in endonasal endoscopic dacryocystorhinostomy (en-DCR) [1, 2]. This gauze with epinephrine provides vasoconstrictive effect for bleeding control [1]. However, complication is rarely mentioned in relation to this packing technique. A report illustrated that a nasal packing gauze fallen into the throat caused airway obstruction in an en-DCR just after a general anesthesia [2]. We here report a case of accidental ingestion of a nasal packing gauze during an en-DCR under local anesthesia.

Case Report

A 66-year-old woman underwent en-DCR for a right acquired nasolacrimal duct obstruction. The surgery was performed in a supine position under local anesthesia (1% lidocaine and epinephrine diluted to 1:100,000) without sedation. X-ray detectable ribbon gauze soaked with 0.02% epinephrine was placed in the middle meatus to prevent blood and liquid from flowing into the pharynx (Fig. 1). The same packing gauze was also used for hemostasis during the surgery. The osteotomy was performed using an ultrasonic bone curette (SonoPet®; Stryker, Kalamazoo, MI, USA) [3]. The patient was instructed to spit out the irrigated fluid as needed.

At the end of the surgery, 1 piece of gauze was missing and could not be detected by the endonasal endoscopic exploration. Abdominal X-ray image on the same day demonstrated the presence of the gauze in the stomach although the patient did not notice swallowing the gauze (Fig. 2a, b). The gauze was not there on the X-ray 1 week later (Fig. 2c).

Discussion

We report a rare case of accidental ingestion of nasal packing gauze during an en-DCR under local anesthesia. A fallen nasal packing gauze into the throat or deeper potentially results in serious complication such as airway obstruction [2], aspiration [4], and bowel perforation [5]. Although the reported accidental ingestion of an en-DCR complication arose just after the extubate of a general anesthesia [2], this complication is proved as well to occur under local anesthesia.

The patient did not notice swallowing of the nasal packing gauze. The throat was anesthetized with overflowed anesthetic agent from the injection site because of the supine position [6], which was a possible reason.

The packing gauze swallowed by the patient was placed in the middle meatus, close to the throat. Whereas, the main surgical field of the en-DCR is just anterior to the middle concha [1, 3, 6]. The gauze was left, therefore, out of the view during the surgery. Keeping the gauze end out of the nostril is a good preventive measure. Alternative use of neuropatties with very long threads are likely helpful for managing surgical field as well.

The use of a gauze with X-ray detectable was helpful for detecting its missing [7]. If an ingested foreign object is found in the stomach after more than 4 weeks, it needs to be removed under an endoscopic guidance in general anesthesia [8]. In the present case, a plain X-ray demonstrated that the gauze passed out of the body in 1 week. As well, the X-ray indicator also helped us to confirm that there was no retained gauze in the nasal and sinus cavities under a plain X-ray [7].

In conclusion, surgeons need to be aware of accidental ingestion of a nasal packing gauze in en-DCR under local anesthesia. Keeping the gauze end out of the nostril is likely preventive for this complication. The use of X-ray detectable gauze was helpful to detect its location.

Statement of Ethics

The Institutional Review Board of the Ethics Committee of Aichi Medical University Hospital approved this retrospective case report, which adhered to the tenets of the 1964 Declaration of Helsinki.

Disclosure Statement

The authors have no competing interests to declare.

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Fig. 1. An X-ray detectable nasal packing gauze with a size of 30 × 3 cm used in the endonasal endoscopic dacryocystorhinostomy. The blue strip is X-ray detectable.

Fig. 2. Plain X-ray of the abdomen. **a** The nasal packing gauze with X-ray indicator is detected in the stomach on the same day of the surgery (arrow). **b** Magnified image. **c** The gauze disappeared 1 week later.