

## A pediatric case of anesthesia mumps after general anesthesia

Sir/Madam,

We would like to report an 8-year-old child with swelling of the right parotid gland after general anesthesia. He weighed 18 kg and underwent adenoidectomy and bilateral tympanostomy tube insertion operation. Preoperatively, he was normal and he also had no other medical problem. Anesthesia induction was performed with 2 mg/kg of propofol, 1 mcg/kg of fentanyl, and 0.5 mg/kg of rocuronium. After endotracheal intubation, maintenance of anesthesia was achieved with sevoflurane (2-3 vol%) in 50% O<sub>2</sub> and 50% air. The surgical procedure lasted for 35 min. The patient was extubated without any problems at the end of the surgery. After the extubation period, we noticed a painless swelling on the right parotid gland extending the angle of the mandible [Figures 1 and 2]. There was no sign of inflammation. The right parotid gland swelling disappeared in the next 24 h without any sequelae.

Acute transient swelling of the parotid gland related to anesthesia, defined as "anesthesia mumps," is a rare complication. It is a benign and noninfectious complication.<sup>[1]</sup> This usually occurs immediately after surgery and resolves spontaneously over a period of a few hours to a few days without any known sequelae.<sup>[2]</sup> It was more rarely seen in the pediatric population compared to adults. Although the exact mechanism of anesthesia mumps is not fully explained, different explanations have been suggested including obstruction of Wharton or Stensen ducts from patient

positioning and endotracheal tube placement, positive pressure ventilation during and increased pressure in the oral cavity, and thickened oral secretions secondary to salivary stasis.<sup>[3]</sup> We thought that the clinical picture in our case may have resulted from intraoral pressure increase by mask ventilation or from obstruction of ducts due to head positioning during bilateral tympanostomy tube insertion. Our patient had an adenoid face (a narrow upper dental arch, increased anterior face height, a steep mandibular plane angle, and a retrognathic mandible). Manual ventilation on mask was not comfortable due to poorly fitting mask during the induction. Also, the patient had a relative micrognathia. On the other hand, tympanostomy tube insertion was made when the head rotated to the left side and right side.

Anesthesia mumps usually resolves spontaneously over a period without any treatment. In some cases, hydration and warm compresses may be helpful in relieving the symptoms.<sup>[2,4]</sup> In our case, we managed the swelling conservatively by the advice of otolaryngology clinic. The swelling decreased and resolved completely in 24 h. Additionally, there was no radiologic image for this patient. The swelling of the parotid gland resolved gradually and also, the otolaryngologists did not anticipate any other pathology due to signs of swelling. We did not want to perform an x-ray examination of this child patient for benign swelling.

In conclusion, anesthesia mumps may occur immediately after general anesthesia in pediatric patients and they fully recover. Also, we hope that the reporting of such pediatric cases would increase the awareness among anesthesiologists regarding this benign complication.



Figure 1: Adenoid face of patient and swelling of right parotid gland



Figure 2: Swelling of right parotid gland

## AUTHOR'S CONTRIBUTION

HB contributed in the conception of the work — Conducting the study, revising the draft, approving of the final version of the manuscript, and agreeing with respect to all aspects of the work. IY contributed in revising the work critically for important intellectual content, approving of the final version of the manuscript, and agreeing with respect to all aspects of the work. MS contributed to the data collection of the work, approval of the final version of the manuscript, and agreed with respect to all aspects of the work. HY contributed in revising the work critically for important intellectual content, approving of the final version of the manuscript, and agreeing with respect to all aspects of the work. AD contributed in revising the work critically for important intellectual content, approving of the final version of the manuscript, and agreeing with respect to all aspects of the work. ADK contributed in revising the work critically for important intellectual content, approving of the final version of the manuscript, and agreeing with respect to all aspects of the work.

### 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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