



Acute Unilateral Swelling of Parotid Gland After General Anesthesia: Anesthesia Mumps

Erhan Özyurt¹, Gülsüm Ekin Sarı², Selen Doğan²

¹Clinic of Anesthesiology and Reanimation, University of Health Sciences, Antalya Training and Research Hospital, Antalya, Turkey

²Clinic of Obstetrics and Gynecology, University of Health Sciences, Antalya Training and Research Hospital, Antalya, Turkey

To the Editor,

Anesthesia mumps is a unilateral or bilateral acute swelling of the parotid glands that develops after a surgery (1-4). It was first described in 1960, and the incidence is reported to be 0.16%-0.2% (5). However, the mechanisms that lead to anesthesia mumps have not yet been elucidated. We aimed to raise awareness of a rare case of anesthesia mumps, among both the anesthesia and the surgical teams.

Total abdominal hysterectomy and debulking surgery were planned for a 46-year-old female patient due to endometrium cancer. She did not have any co-morbid disease or abnormal laboratory findings before the surgery. In the operating room, after preoxygenation with 100% oxygen, we applied anesthesia induction with 0.2 mg/kg midazolam, 2.5 mg/kg propofol, 1 mcg/kg fentanyl, and 0.6 mg/kg rocuronium. We continued mask ventilation for 2 minutes with an average airway pressure of 20 cm H₂O. After the endotracheal intubation, we used 50% oxygen and 50% air, 6 volume% desflurane, 0.5 mcg/kg/min remifentanyl infusion, and 0.15 mg/kg rocuronium for anesthesia maintenance. The operation was performed in supine position and lasted for 5 hours. During the operation, we administered 3,000 mL of crystalloid, 2 units of erythrocyte suspension, and 2 units of fresh frozen plasma to the patient. At the end of the operation, we extubated the patient using 2 mg/kg sugammadex and administered 1 g paracetamol and 100 mg tramadol for postoperative pain management. However, a sudden, painless swelling occurred in the right parotid region at the 5th hour postoperatively. The patient was diagnosed with acute parotitis on physical examination and ultrasonography after an otorhinolaryngology consultation. We administered dexamethasone, non-steroid anti-inflammatory drugs, warm compression, and maintained hydration. The complaints regressed on the 11th postoperative day, and the patient was discharged. An informed consent was obtained from the patient to publish data regarding her case.

Many factors are thought to play a role in the mechanism of anesthesia mumps (1,5). First, due to muscle relaxation during

general anesthesia and positive pressure mask ventilation applied into the mouth, air enters the parotid glands retrogradely and causes pneumoparotitis (3). Additionally, anesthesia mumps may be the result of obstruction of the salivary canal in cases of excessive stress, coughing, and sneezing in patients in whom positive pressure ventilation is continued during awakening from general anesthesia (1). Another mechanism is the over-rotated head position and compression of the parotid gland, resulting in the obstruction of the parotid canal during prolonged operations. Moreover, drugs used during the operation, such as atropine, succinylcholine, morphine, and inhalation anesthesia, can lead to obstruction of the salivary tract in patients who do not achieve adequate hydration, by reducing and thickening salivary secretion (2). We assume this mechanism to be effective in our patient. Anesthesia mumps may regress spontaneously within 48 hours or there may be a need for a longer symptomatic treatment (2,3). Adequate hydration, pain control, and warm compress application can help relieve symptoms.

In conclusion, it is the most important issue to address the concerns of patients and their families by stating that anesthesia mumps is a temporary condition.

Conflict of Interest: No conflict of interest was declared by the authors.

REFERENCES

1. Baykal M, Karapolat S. A case of anesthesia mumps after general anesthesia. *Acta Anaesthesiol Scand* 2009;53:138.
2. Kwon SY, Kang YJ, Seo KH, Kim Y. Acute unilateral anesthesia mumps after hysteroscopic surgery under general anesthesia: a case report. *Korean J Anesthesiol* 2015;68:300-3.
3. Tekelioglu UY, Akkaya A, Apuhan T, Demirhan A, Bayir H, Kocoglu H. A case of anesthesia mumps after general anesthesia. *J Anesth* 2012;26:130-1.
4. Akçaboy EY, Akçaboy ZN, Alkan H, Gogus N. "Anesthesia mumps" after electroconvulsive therapy anesthesia. *J ECT* 2011;27:21-2.
5. Rosique MJ, Rosique RG, Costa IR, Lara BR, Figueiredo JL, Ribeiro DG. Parotitis after epidural anesthesia in plastic surgery: report of three cases. *Aesthetic Plast Surg* 2013;37:838-42.

Address for Correspondence: Erhan Özyurt, Clinic of Anesthesiology and Reanimation, University of Health Sciences, Antalya Training and Research Hospital, Antalya, Turkey

Phone: +90 505 317 17 09

e-mail: eozyurt@hotmail.com

ORCID: orcid.org/0000-0003-1139-2313

Received: 25 June 2019

Accepted: 19 August 2019 • DOI: 10.4274/balkanmedj.galenos.2019.2019.6.103

Available at www.balkanmedicaljournal.org

Cite this article as:

Özyurt E, Ekin Sarı G, Doğan S. Acute Unilateral Swelling of Parotid Gland After General Anesthesia: Anesthesia Mumps. *Balkan Med J* 2019;36:363

©Copyright 2019 by Trakya University Faculty of Medicine / The Balkan Medical Journal published by Galenos Publishing House.

