Case Report

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Case Report: Postoperative Parotitis and Review Of The Literature

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Abstract

Introduction: Anesthesia mumps (mumps), also called postoperative parotitis and characterized by swelling of the salivary glands after general anesthesia. Usually occurs within the first two weeks postoperatively. It is a benign and usually noninfectious complication and usually unilateral. Patients complain of painful swelling. The etiology is unknown. Postoperative parotitis is usually mild is a preventable clinical picture. In order to prevent this complication, it is recommended to prevent compression of the parotid gland or duct by providing an appropriate position. In addition to providing normal neck venous drainage, it is necessary to select anticholinergics with low antisialagogue activity in premedication and to avoid maneuvers that increase intraoral pressure.

Case report: In this case repot we presented a 52-year-old woman that developed postoperative parotitis after surgery with general anesthesia for senile cataract.

Conclusion: Postoperative parotitis is usually mild and preventable. Some pharmacological agents can be used in addition to an appropriate position to prevent this complication. Although it is generally mild, the patient should be closely monitored in terms of airway and the patient and his relatives should be informed about this clinical picture.

Keywords: Postoperative period, parotitis, anesthesia

Introduction

Anesthesia mumps (mumps), also called postoperative parotitis and characterized by swelling of the salivary glands after general anesthesia. Usually occurs within the first two weeks postoperatively[1,2]. It is a benign and usually noninfectious complication and usually unilateral. Patients complain of painful swelling. The etiology is unknown. Increased pressure in the mouth, inappropriate head and neck position of the patient, loss of muscle tone of stensen duct orifice (due to the use of muscle relaxants), accumulation of salivary gland ducts, and dirty abdominal surgeries are among the accused factors. In this study, we aimed to present the bilateral parotitis after senile cataract operation in the light of the literature

Case Report

A 52-year-old woman weighing 72 kg and 165 cm was scheduled for surgery with general anesthesia for senile cataract. In the preoperative anesthesia examination, physical examination findings and routine laboratory tests were found to be normal. The patient was evaluated as ASA I and operated under general anesthesia. The patient was inducted with 0.02 mg/kg midazolam, 2 mg/kg propofol, 1 µg/kg fentanyl and 0.6 mg/kg rocuronium. Endotracheal tube 7 was spiral orotrecheal intubated. Anesthesia was maintained with 1.5 l/min O_2 (50%), 1.5 lt/min air (50%) and 2% sevoflorane. Hemodynamic parameters of the patient were stable peroperatively. Neuromuscular block was antagonized with sugammadex 2 mg/kg at the end of the operation. Approximately four hours after the operation, redness and painful swelling developed in the bilateral parotid gland, more prominent on the right side (Figure 1) Ear and nose throat consultation was requested and the patient was diagnosed as postoperative parotitis by parotid ultrasonography. Etodolac 400 mg 2 * 1 and ceftriaxone 500 mg 2 * 1 were administered for 10 days. The patient's complaints began to regress from day 2 postoperatively and healed completely on day 10.

Discussion

The parotid gland is more prone to inflammation than other large salivary glands due to reasons such as the anatomical

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Figure 1: Redness and painful swelling developed inn the bilateral parotid gland, more prominent on the right side

features of the buccal orifice and the absence of mucin secretion in the secretion of the parotid gland.

Different mechanisms are considered in postoperative parotitis formation such as various types of metastatic, ascending and traumatic pathways[3].

Surgical procedures lasting more than 5 hours, surgical procedures performed with prone position, sitting position or extension of the head have been reported as predisposing factors[1,4,5]. Pneumoparotitis is another accused factor and is characterized by painless swelling. Pneumoparotitis is also observed in crepitation. In obese and short, thick necked patients, perfusion may be affected as a result of compression of position-related vessels. Developing ischemic sialadenitis usually presents with unilateral painful swelling[1]. Straining has also been reported to play a role in the development of postoperative parotitis[6]. In our case, the patient was evaluated as mallampati[2]. There was no intubation difficulty. There were no problems during operation and during wake-up.

Postoperative parotitis can be detected after each operation. However, some studies have reported an association with infected cases such as appendicitis, peritonitis, perforated gastric ulcer perforation[7].

Mouth dryness after anesthesia may be another predisposing factor for postoperative parotitis. Preoperative fasting, dehydration, mechanical obstruction of the head position and retention of secretion may result in postoperative parotitis[4,6,8]. Morphine and atropine however, it is one of the other factors accused especially in bilateral parotitis. Other accused mechanisms include depolarizing neuromuscular agents increasing intraoral pressure by fasciculation and reducing salivary secretion of fentanyl and sevoflurane[1,4]. In our case, fentanyl was applied during induction. Maintenance with sevoflurane was achieved. Postoperative parotitis may present as a painful condition that may require surgical excision of a mild painful swelling[1]. Generally, airway swelling is not affected, but in the literature, cases of airway obstruction have been reported[4,9]. In our case, bilateral swelling was observed on the right side. There was no shortage of airway. Response to symptomatic treatment was achieved and surgical intervention was not required. In order to prevent the development of postoperative parotitis, it is recommended to prevent compression of the parotid gland or duct by providing an appropriate position. In addition to providing normal neck venous drainage, it is necessary to choose anticholinergics with low antisialagog activity in premedication and avoid maneuvers that increase intraoral pressure (such as patient pushing, pressurized mask ventilation).

Conclusion

Postoperative parotitis is usually mild and preventable. Some pharmacological agents can be used inaddition to an appropriate position to prevent this complication. Although it is generally mild, the patient should be closely monitored in terms of airway and the patient and his relatives should be informed about this clinical picture.

References

1. Narang D, Trikha A, Chandralekha C. Anesthesia mumps and morbid obesity. Acta Anaesth Belg 2010;61(2):83-5.
2. Mutaf M, Büyükgüral B. An unusual postoperative complication: anesthesia mumps. Eur J Plast Surg 2007;29(7):335-8
3. Kumar K.P, Kumar P. K , Jagadesh G. Acute sialadenitis of parotid gland: Anaesthesia mumps Indian J Anaesth. 2014 Jan-Feb; 58(1): 97–8.
4. Cavaliere F, Conti G, Annetta MG, Greco A, Cina A, Proietti R. Massive facial edema and airway obstruction secondary to acute postoperative sialadenitis or "anesthesia mumps": a case report. JMCR 2009;3(4):7073
5. Liu FC, Liou JT, Li AH, Chiou H Jr, Day YJ. Acute unilateral parotid glands enlargement following endotracheal general anesthesia: report of two cases. Chang Gung Med J 2007;30(5):453-7
6. Serin S, Kaya S, Kara CO, Baser S. A case of anesthesia mumps. Anesth Analg 2007; 104(4):1005
7. Kaya C., Sekban N., Öztürk S., Gencer M. Postoperatif Parotitis; Olgu Sunumu Eşliğinde Literatüre Genel Bir Bakış Turkiye Klinikleri J Anest Reanim 2013;11(2):79-82
8. John BD. Postoperative parotitis. Ann Surg 1919;69(2):128-30
9. Kiran S, Lamba A, Chhabra B. Acute pansialadenopathy during induction of anesthesia causing airway obstruction. Anesth Analg 1997;85(5):1052-3