



# Anesthesia Mumps after The Cesarean Section in Pregnant Woman

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## ABSTRACT

Anesthesia mumps is characterized by acute transient swelling of the parotid gland association with general anesthesia. We presented a 25 years old pregnant woman with anesthesia mumps after 24 hours Cesarean section, and discussed treatment of anesthesia mumps and differential diagnosis. 25 years old woman underwent to operation for Cesarean section. Her Medical history had no chronic disease, and no allergies. Her mental and psychological status, neurological, other systematical examination findings and laboratory values were normal. General anesthesia was administered. Twenty four hours after the extubation, a large swelling of right more than left parotid region expanding down to the mandibular angle was noted. In conclusion we suggest that especially obstetrical cases should be performed gently intubation and extubation and used medications should be attention. In addition, anesthesia mumps of patients may fully recover within a few days without any treatment or with treatment.

**Key words:** anesthesia mumps; general anesthesia; pregnant women

## Hamile Bayanda Sezeryan Sonrası Gelişen Anestezi Kabakulağı

Genel anesteziye bağlı parotis bezinin akut geçici şişmesi ile karakterizedir. Biz , 25 yaşında hamile bir bayanda, sezaryen ameliyatından 24 saat sonra gelişen anestezi kabakulağının tedavisi ve ayırıcı tanısı irdeleneceğiz. 25 yaşında kadın sezaryen operasyonuna alındı. Anamnezinde kronik bir hastalık ve alerji öyküsü yoktu. Zihinsel ve psikolojik durumu, nörolojik ve diğer sistem muayene bulguları ve laboratuvar değerleri normaldi. Genel anestezi uygulandı. Ekstübasyondan yirmi dört saat sonra sağ parotis bölgede sola göre daha büyük olmak üzere mandibular açının aşağına doğru genişleyen şişlik mevcuttu. Sonuç olarak, özellikle obstetrik olgularda nazikçe entübasyon ve ekstübasyon yapılmalı ve kullanılan ilaçlara dikkat edilmesi gerektiği kanaatindeyiz. İlave olarak Anestezi kabakulağı tedavi ile veya tedavisiz birkaç gün içerisinde iyileşebilir.

**Anahtar kelimeler:** Anestezi kabakulağı, genel anestezi, hamile bayan

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## INTRODUCTION

Anesthesia mumps is characterized by acute transient swelling of the parotid gland association with general anesthesia. Anesthesia mumps is an uncommon postoperative complication and a rare clinical entity and It is a benign and noninfectious complication (1,2). The swelling and enlargement are transient and may last for several minutes to several days (2). There has been no report of anesthesia mumps in obstetric surgical literature and after postoperative 24 hours as yet. We presented a 25-year young pregnant women with anesthesia mumps after 24 hours Cesarean section, and discussed treatment of anesthesia mumps and differential diagnosis.

## CASE

25 years old woman underwent to operation for Cesarean section. Her Medical history had no chronic disease, and no allergies. Her mental and psychological status, neurological, other systematical examination findings and laboratory values were normal. General anesthesia was induced with iv fentanyl iv 0.5 µg.kg-1, propofol iv 2.5 mg.kg-1 and vecuronium 0.1 mg.kg-1 after routine anesthesia monitoring. After orotracheal intubation, an endotracheal tube was fixed on the right side of mouth. Anesthesia was maintained with sevoflurane (1-1.5 % end tidal concentration) in 50% nitrous oxide and 50% mixture of oxygen and fentanyl iv 50 µg. The patient was placed in the supine position. The surgical procedure was uneventful. The total blood loss was about 450 ml. The operation was lasted about 45 minutes. His vital signs remained stable during the operation, Neuromuscular block was reversed with were administered intravenously neostigmine 1.5 mg and atropine 0.5 mg. The patient was extubated without any problem and recovery was uneventful. Twenty four hours after the extubation, a large swelling of right more than left parotid region expanding down to the mandibular angle was noted (Figure 1). The patient complained of moderate bilateral swelling and mild pain in this area. There were mild difficulty of swallowing, and mild dyspnea. Clinical examination showed diffuse edema over the parotid gland and intraoral examination seen that the orifice of the Stensen's duct was open. The overlying skin was not erythematous, and warm. There was no palpable crepitation. The body temperature was also

normal. Serum amylase level and white blood cell were normal. We performed ultrasonography, which showed bilateral submandibular glands and right parotid gland enlargement and edema (Figure 2). Besides, chest roentgenogram had no evidence of pneumothorax. The patient received non-steroidal anti-inflammatory drug two days. No antibiotic was given. Her clinical symptoms and signs resolved for 3 days postoperative. The patient was discharged 4 days after the operation.

## DISCUSSION

Acute transient swelling of the parotid gland after surgical procedures performed under general anesthesia was first reported by Attas et al (3). Incidence of anesthesia mumps was reported that five in 3000 following endotracheal anesthesia by Matsuki et al (4). Authors reported that still unclear the etiology of the anesthesia mumps. Among the implicated mechanisms are trauma, straining and/or coughing during anesthesia, vascular congestion, and venous engorgement of the head and neck and parasympathetic anesthetic drugs (etc. antihistamines, and succinylcholine), and atropine, and dehydration, and mechanical blockage of the parotid duct by intubation and fixation of the endotracheal tube or head stripping and obstruction of glandular excretory ducts by position, calculi, or thickened secretion (5-8).

Mutaf et al. reported that combination of increased saliva secretion with insufficient drainage, the saliva accumulates in the gland and causes swelling and pain (2). Other causes of acute postoperative parotid swelling, which need to be eliminated from the differential are viral parotitis, pneumoparotitis, acute allergic conditions, and acute postoperative bacterial parotitis may be wrongly diagnosed (10-12). Liu et al. (13) believe the presence of the patient's underlying disease, choice of anesthetic drugs, surgical position, operative site (such as head and neck surgery) and induction methods (such as endotracheal tube, laryngeal mask inadequate insertion and fixation) may all contribute to the development of acute swelling of the parotid glands during general anesthesia.

Although in the area over the course of parotid duct is not anything such as edema, redness, inflammation, and a purulent discharge draining from the orifice, in our patient was administered only atropine and endotracheal intubation from among predisposing factors.



**Figure 1.** Swelling of the right parotid gland



**Figure 2.** The right parotid gland enlargement and edema

Anesthesia mumps are transient and may last for several minutes to several days. The majority of cases were found after the patient underwent anesthesia for a long time (2). In our patient was seen after 24 hours of surgery. Anesthesia mumps are usually regarded as a mild and transitory complication. Patients may complain light pain and distress, but airway patency is not threaten, nor are reflexes like swallowing or coughing impaired. But acute salivary gland swelling during anesthesia induction led to airway obstruction and tracheostomy (5). In our patient complained of moderate bilateral swelling and mild pain in this area. There were mild difficulty of swallowing, and mild dyspnea. Anesthesia mumps is a rare and selflimited postoperative complication, which usually subsides within a few days with symptomatic therapy including antiinflammatory drugs, adequate hydration, and observation. In our patient was administered non-steroidal anti-inflammatory drug two days and no antibiotic was given. Her clinical symptoms and signs improved for 3 days postoperative.

In conclusion we suggest that especially obstetrical cases should be performed gently intubation and extubation and used medications should be attention. In addition, anesthesia mumps of patients fully recover within a few days without any treatment or with treatment.

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