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Case Report

Postoperative acute parotitis after cesarean delivery under spinal anaesthesia: a rare entity

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ABSTRACT

Postoperative acute painless parotid gland swelling, which is a rare complication has been reported after caesarian section (CS) under neuraxial anaesthesia. Here, we present a parturient who suffered from acute parotitis, which developed after elective repeat CS under spinal anaesthesia.

Keywords: CS, Parotitis, Spinal anaesthesia

INTRODUCTION

Acute painless swelling of the parotid gland in the postoperative period is an extremely rare clinical situation. However, limited number of cases have been reported that are identified as acute parotitis developing after obstetrics surgery performed under neuraxial anaesthesia.[1,2] This asymptomatic sudden growth in the parotid gland is usually temporary, and the treatment was provided with intravenous (IV) hydration, dexamethasone, anti-inflammatory, and/or anti-histaminic drugs.[1,2] Even though this complication is considered to be self-limiting up to 48 hours, theoretically, urgent tracheostomy as a result of full airway obstruction may be required. Hereby, we aim to draw at this complication by presenting our parturient with no previous history of parotitis, who suffered from acute parotitis complication after her elective CS under spinal anaesthesia.

CASE REPORT

Mrs U, 33 years, G2P1L1, was admitted at her 37 weeks 5 days of gestation with prelabour rupture of membranes. She is a case of previous LSCS, hypothyroid, bronchial asthma. She was taken up for repeat LSCS+bilateral tubal ligation under spinal anesthesia. Intraoperative period was uneventful. After around 8 hours postoperatively left sided parotid swelling was noted. She had no symptoms of fever, pain in the ear,difficulty in swallowing or breathing. The left ear lobule was found to be elevated and a uniform swelling was visualised. Physician opinion was obtained and was treated with iv steroid single dose. Overnight the swelling reduced. There were no symptoms throughout the postoperative period. She was discharged on postoperative day 3.

Figure 1: Normal right parotid region.

Figure 2: Left parotid enlargement displacing the ear lobule anteriorly.

DISCUSSION

Common causes of acute parotitis are anatomical anomaly, mass, stone, viral or bacterial infection, radiation, sarcoidosis, and inflammatory pathologies or conditions secondary to inflammatory pathologies such as amyloidosis, tuberculosis, Wegener's granulomatosis, and Sjogren's syndrome. In addition, medical treatments such as L-asparaginase, phenylbutazone, and clozapine, which cause ductal stenosis, may result in acute parotitis. However, postoperative acute parotitis was first encountered in 1960.[3] The acute, transient, noninfectious parotid or submandibular gland swelling associated with general anaesthesia has been defined as anaesthesia mumps.[4,5] The possible mechanism in postoperative acute parotitis cases after general anaesthesia is thought to be obstruction of the parotid duct as a result of gland enlargement. Factors such as increased positive airway pressure, prone position, obesity, prolonged operation, and anti-cholinergic drug use during mask ventilation have been considered. The symptoms of the patients can vary bilateral parotid gland resulted in postoperative upper airway obstruction after carotid endarterectomy, which required emergency intubation and even tracheostomy.[6-8] The parotid gland swelling can also be observed as a result of arterial obstruction–induced glandular ischemia in the prone or sitting position and hyperextension of the head, especially in obese patients who underwent general anaesthesia.[9,10] Although prolonged operation under general anaesthesia is one of the contributing factors potentially because of venous stasis or mechanical obstruction in the parotid duct, the situation would be expected to be different after a short operation such as CS generally preferred in supine position under spinal or epidural anaesthesia. There are limited number of publications related to postoperative parotid enlargement because of neuraxial (spinal, epidural, and combined spinal-epidural) anaesthesia.[1,2,11] Parotitis that developed with mild respiratory distress 18 hours after spinal anaesthesia for CS was reported in a pregnant patient after in vitro fertilization.[1]

In our case, swelling of the parotid gland without respiratory distress was observed after 8 hours of spinal anesthesia and lasted approximately 5 hours, which was noticed by the duty doctor. She had no h/o parotitis after her first CS. Bilateral parotid gland enlargement case report is published after combined spinal-epidural anaesthesia, which is one of the neuraxial methods for CS; in this case, the beta stimulant effect of ephedrine (48-52 mg) used intraoperatively was held responsible.[11] However, in our case, only a dose of iv 20 mg of ephedrine (in 5-mg fractionated doses) was administered in the treatment of spinal-induced hypotension that we believe will not affect the drainage of the parotid gland.

CONCLUSION

Today, postoperative parotitis is quite rare because of the widespread use of antibiotics, good oral hygiene, and sufficient hydration, which provide adequate electrolyte balance perioperatively. This rare complication can generally regress spontaneously, and supportive treatment can be performed with elevation of the head, hydration, and anti-inflammatory drugs. Close follow-up of postoperative good hydration might be required in this sensitive pregnant patient because this complication limited itself within 5 hours when compared to the previously reported cases by adjusting hydration and prescribing anti-inflammatory agents.

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