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POSTOPERATIVE ACUTE PAROTITIS FOLLOWING LSCS WITH REGIONAL ANAESTHESIA-A CASE REPORT

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ABSTRACT
Postoperative acute parotitis has been reported as a rare complication after caesarian section (CS) under neuraxial anaesthesia. The present case report presents a 31-year-old primigravida with a gestational age of 36 weeks who was admitted for an elective LSCS at a private hospital at Chennai, India. She was administered with 12-mg hyperbaric bupivacaine, 0.3 mg of Buprenorphine hydrochloride as spinal anesthesia and a single dose of 5 mg of ephedrine IV bolus to prevent spinal-induced hypotension. On Postoperative day-1, the subject noticed sudden onset of painless bilateral parotid gland swelling. She was managed with simple and effective measures like head elevation, proper hydration, cold packs and use of antiinflammatory drugs and this rare complication spontaneously regressed without any complication within 48 hours. The present case report contributes scientific evidence for presentation and management of rarely reported post operative complication bilateral acute parotitis.

KEY WORDS: Postoperative acute parotitis, Neuraxial anaesthesia, bupivacaine, Buprenorphine hydrochloride, ephidrine, C-Section

INTRODUCTION
Acute parotitis in the postoperative period is an extremely rare clinical situation. Searching through the literature, only limited number of cases have been reported as acute parotitis developing after obstetrics and plastic surgery performed under neuraxial anaesthesia[1].This asymptomatic sudden incidence of parotitis was effectively managed at a private multispeciality hospital with intravenous (iv) hydration, anti-inflammatory and antiemetic drugs 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 aimed to report one of the rare postoperative complication (Acute Parotitis) of one of our case after caesarian section (CS) under neuraxial anaesthesia.

CASE PRESENTATION
A 31-year-old primi parturient with a gestational age of 36 weeks was admitted for an elective LSCS after obtaining written informed consent. The parturient had a nonconsanguinous marital history with a marital life of 3 years. Her first and second trimesters were uneventful and during her third trimester, the fetal growth percentile and liquor started declining (Amniotic fluid index -5cm) and

the same was conservatively managed till 36 weeks. As conservative management failed to mainitain adequate amniotic fluid (Oligohydramniosis, she was posted for an elective LSCS.The parturient did not have any known history of systemic disease and allergy. After preloading 300ml of RL, aspiration prophylaxis and standard anaesthesia monitoring, spinal anaesthesia was performed using 12-mg hyperbaric bupivacaine, 0.3 mg of Buprenorphine hydrochloride between L3–L4 intervertebral spaces with a 27-gauge atraumatic spinal needle in the sitting position. Surgery was commenced when the sensory block reached to the thoracic (Th) 4 dermatome. To maintain perioperative uteroplacental circulation and to prevent spinal-induced hypotension, 5 mg of ephedrine iv bolus was administered as a single dose.

Under aseptic precautions the abdomen was opened in layers through Pfannenstiel incision. The uterus was opened through curvilinear incision, a live baby girl with APGAR score of 8/10, 9/10 at one and five minutes and body weight of 2.483Kg was delivered as vertex presentation. After the umbilical cord was clamped, iv oxytocin infusion was initiated, and IV 4 mg of ondansetron bolus was given as part of our antiemetic protocol. Per abdominal examination revealed well contracted uterus and healthy wound. Pervaginal bleeding was within normal limits. The block at T6, disappeared after 3 hours in our patient who had a normal neurological examination with vital signs and did not require any respiratory support. According to our postoperative analgesia protocol, 1 gram of iv paracetamol was administered.

The postoperative period was initially uneventful, and the mother was started on orals after 6 hours and the parturient tolerated well. On Postoperative day-1 , the subject noticed sudden onset of generalised swelling on the either side of the cheeks without pain or fever.She had painless bilateral parotid gland swelling swelling in both parotid glands with no episodes of fever and a general physician's and general surgeon's opinion was obtained. Vitals were monitored, IO chart maintained and was planned to manage with intravenous fluids for 12 hours, antibiotics , analgesics and antiemetics.

For differential diagnosis, the serum IgE for Mumps was obtained. The Postoperative whole blood and biochemical laboratory parameters were within normal limits.The patient was advised with adequate hydration, cold packs and observation and 1 gram of iv paracetamol was administered intravenously TDS and bilateral reduction in swelling was observed after 48 hours.

CASE DISCUSSION

Postoperative acute painless parotid gland swelling, is reported as a rare complication that has been reported after caesarian section (CS) under neuraxial anaesthesia[1].However, acute parotitis developing after obstetrics and plastic surgery performed under neuraxial anaesthesia has been reported to be very limited in the literature[2]. In general, acute parotitis may be caused due to anomaly, tumours, stone, infection, radiation, sarcoidosis, and inflammatory pathologies, tuberculosis, Wegener's granulomatosis, and Sjogren's syndrome. Further, medical treatments such as L-asparaginase, phenylbutazone, and clozapine, which cause ductal stenosis, may also result in acute parotitis[2]. In our case, swelling of the parotid gland without respiratory distress lasted approximately 48 hours after spinal anaesthesia. it was noticed by the patient herself. The published literature also portrays few more cases of parotitis following plastic surgery under epidural anaesthesia.[2] In another case report, combined spinal–epidural anaesthesia, which is one of the neuraxial methods for CS the beta stimulant effect of ephedrine (48–52 mg) that was used intraoperatively was held responsible bilateral parotid gland enlargement is published.[3] However, in our case, only a minimal single dose of IV 5 mg of ephedrine was administered in the treatment of spinal-induced hypotension that we believed not to affect the drainage of the parotid gland.

The symptoms of the patients can vary from asymptomatic swelling to complete blocking of the airway, which may lead to severe respiratory distress. Factors such as increased positive airway pressure, prone position, obesity, prolonged operation, and anti-cholinergic drug use during mask ventilation can be considered as possible mechanisms in postoperative acute parotitis (Anaesthesia mumps) cases after general anaesthesia[4][5]. The contributing factor for acute parotitis in prolonged operation under general anaesthesia has been reported to be due to venous stasis or mechanical

obstruction in the parotid duct. But a short operation such as CS generally preferred in supine position under spinal or epidural anaesthesia very rarely causes the same condition. In addition, the wide spread use of antibiotics, maintenance of good oral hygiene, which provide adequate electrolyte balance perioperatively, postoperative parotitis is quite rare[5][6]. In a previously published study, Parotitis developed with mild respiratory distress 18 hours after spinal anaesthesia for CS was reported in a pregnant patient after in vitro fertilization[4] Head elevation, proper hydration and use of antiinflammatory drugs can generally aid to regress this rare complication spontaneously. Close follow-up of postoperative good hydration might be required in this sensitive pregnant patient because this complication limited itself within 48 hours by adjusting hydration and prescribing anti-inflammatory agents.

Conclusion

The present study reports a parturient with acute parotitis following C-Section under spinal anaesthesis. The study reports provide an add on evidence to this rare complication. The study report claims that supportive treatments such as elevation of the head, hydration, and anti- inflammatory drugs can generally aid acute parotitis to regress spontaneously. However, close monitor and follow-up of postoperative good hydration might be required as this complication can cause the risk of airway obstruction that may lead to respiratory distress.

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