

TREATMENT OF GRAVID PATIENT SUSTAINING FACIAL FRACTURE UNDER GENERAL ANESTHESIA: A CASE REPORT AND REVIEW OF LITERATURE

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Introduction

Pregnancy is a physiologic condition where the maternal wellbeing imparts on the growth of the fetus. Hence it is important to know the effects of trauma and management of maxillofacial trauma in pregnancy. Hereby we describe a case of mandibular fracture in a pregnant patient who was treated under general anesthesia.

Keywords: pregnancy, mandibular fracture, trauma

Case Report

A 27year old female patient reported to our emergency department with a history of road traffic accident and she was 28-week pregnant. Clinically the patient had restricted mouth opening with intraoral segmental mobility in between the right parasymphyseal region and difficulty in breathing. Immediate gynecological opinion was obtained in view of her pregnancy status and she was advised with ultrasound growth scan following which she was given fitness and was further managed. Orthopantomogram was done with a protective lead apron and revealed fracture in right parasymphysis and bilateral condyle of mandible (Figure 1). Gynecological fitness for open reduction and internal fixation under general anesthesia was obtained. Preoperatively patient was started on prophylactic course of CLASS B group of drugs. Anesthetist opinion was obtained prior to procedure and she was explained about preterm delivery as a complication. Preoperatively, female progesterone hormone intramuscularly was administered as a precautionary measure to avoid preterm delivery. Intraoperatively patient was placed left lateral position (15 degrees). Gynecologist and neonatal care were kept in standby and fetal heart rate was monitored. Minimal amount of propofol and fentanyl was used, and nitrous oxide was avoided. Fracture sites in relation to right

parasymphysis and left condyle were visualized and fixed using titanium plates and screws (Figure 2). Patient was recovered well from the procedure and her hospital stay was uneventful.



Figure 1: Orthopantomogram picture of patient



Figure 2: Fixation of fracture



Figure 3: Postoperative clinical picture

Discussion

According to Dr Frederick C. Irving upto 2% of pregnant women undergo surgery for non-obstetric conditions each year (10). The main risks of surgery during pregnancy are foetal loss, premature labour and delivery (1,4). Nitrous oxide also causes vasoconstriction and may reduce uterine blood supply, decreased fertility and spontaneous abortion in women (2). Intubation can be difficult in pregnancy as there is a risk of epistaxis due to friable mucous membrane (5). Supine position should be avoided, and lateral decubitus position is preferable (1). Thiopental and propofol are safe induction agents (5). Halothane, isoflurane, enflurane and desflurane are safe during pregnancy in appropriate doses (4,5). Mazze and Kallen studied the effects of 5405 non-obstetric surgical procedures performed in 7200 pregnant women from 1973 to 1981 in Sweden (2). General anesthesia was used in 54% of cases, and topical, local, or nerve block anesthesia was used in 9% (2). According to the literature 720,000 pregnant women who underwent 5405 non-obstetric operations and found no association between anesthesia exposure and adverse foetal outcome (2). It is recommended that non-obstetrical elective surgery, whenever possible, should be postponed until delivery. In emergency conditions the procedure can be best scheduled in the mid trimester. In the above mentioned case report the patient had sustained major fractures which resulted to oedema and pain. In order to avoid any complication, the patient was taken up for procedure under general anesthesia under all necessary medical

support and facility. Finally she was successively discharged home and delivered a healthy baby at term without any complications (Figure 3). According to review to literatures cases has been reported for facial fracture reduction under local anesthesia but to our best knowledge we are reporting first case of facial fracture in a gravid patient which was treated under general anesthesia with no complications.

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