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ANAESTHETIC MANAGEMENT OF CAESEREAN SECTION IN A POST SACRECTOMY PATIENT WITH HERNIATION OF GRAVID UTERUS IN THE GLUTEAL REGION-A CASE REPORT

Anaesthesiology

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ABSTRACT

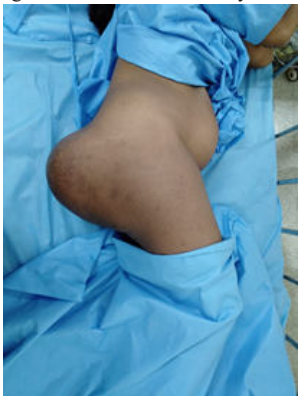
Background: Successful pregnancy outcome in a post sacrectomy patient . **Case Presentation:** We report anaesthetising a pregnant woman, with the gravid uterus in the gluteal region due to defect caused by sacrectomy (combined with chemotherapy) without lumbopelvic reconstruction. **Conclusion:** This is the first report of successful pregnancy and caesarean section after sacrectomy without pelvic reconstruction, to the best of our knowledge.

KEYWORDS

sacrectomy, caesarean , pregnancy

BACKGROUND

Retroversion of the uterus is a normal variant and in most cases spontaneously corrects to axial position by 14 th week of pregnancy and gravid uterus grows into abdominal cavity.



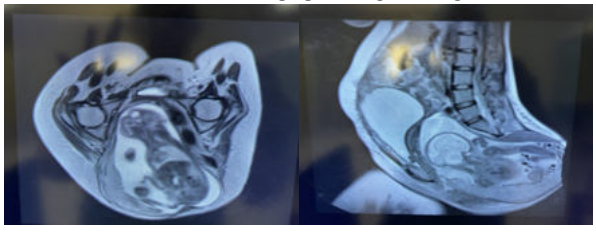
Pregnancy Bump In Gluteal Region

Here we report anaesthetising a pregnant woman , with the gravid uterus in the gluteal region due to defect caused by sacrectomy without lumbopelvic reconstruction . The uterus herniated posteriorly through sacrectomy defect, in mid trimester and the foetus was lying posteriorly in the gluteal region.

Case History

A 27yr old primigravida at 28wks of gestation was referred to our center in view of posterior herniation of uterus , for safe confinement. She was diagnosed with Chondroblastic osteosarcoma of sacrum and coccyx at the age of 22 . She underwent Sacrectomy elsewhere , which was uneventful. Post surgery she also was given 6 cycles of chemotherapy [Adriamycin and Cisplatin]. She had no residual neurological, bladder or bowel issues post surgery. She is a known case of bronchial asthma, and was on inhalers on and off.

During her antenatal routine check up incidentally diagnosed as HCV Positive , but was not on antivirals. On examination , her airway, cardiovascular , respiratory systems and investigations were normal. Abdomen was free and fetus was palpated in gluteal region.



Pre op MRI Image Showing Foetus In The Sacrectomy Defect - Gluteal Region (pushing bladder n bowel)

MRI abdomen and pelvis showed that Sacrum and coccyx inferior to S2 vertebra was not visualised indicative of post sacrectomy status. Retroverted Gravid uterus within gluteal region and lower extremity of fetus is present within the fundus of uterus , which was herniating through the sacrectomy defect. Placenta along posterior wall low lying reaching upto internal os - Grade 2 placenta previa.

After thorough examination and opinion from oncologist and orthopaedician , risk of sacral plexus injury and neurological deficit during caesarean section was explained to the patient . As she developed urinary retention at 34 weeks, decision was made to proceed for elective Caesarean section under GA after giving steroids . Preoperatively, nebulisation with Duolin and Budecort was given day before and before shifting to theatre. Adequate blood products 3 pint PRBC was reserved in view of possible difficulty in surgery and placenta previa grade 2. Routine NPO guidelines and anti aspiration prophylaxis was followed .

OT Table Prepared To Accommodate The Patient Without Pressure On The Gluteal Region

In the operating room, in the operating table was made ready with pillows and sheets, such that there was no pressure on the gluteal region, as that would cause pressure on the foetus. Patient was lying in lateral position on the trolley with oxygen mask. Two 18G IV cannula was placed on the dorsum of both hands and IV Crystalloids started. All standard monitors SPO2 ,NIBP, ECG were connected. Inj. Tranexamic acid 1g and antibiotic was given. The patient was carefully shifted to the OT table from trolley and changed from lateral to supine position. She was preoxygenated adequately , prior to induction and GA was planned with under RSI . Inj Thiopentone250mg iv was given and once she was under , scoline 100mg iv was given. Sellicks manoeuvre was performed by assistant and she was intubated with 7mm cuffed ETT, cuff inflated with 7ml air, connected to ventilator and was put on volume control mode with TV-420ML , RR- 14 / min and PEEP - 5. Maintenance was with ISOFLURANE with MAC - 0.7 and intermittent dose of vecuronium 1mg every 30 minutes. ETCo2 and temperature was monitored continously. Surgery was performed with midline incision and the baby delivered by giving gluteal pressure, the baby cried immediately after birth. It was a preterm boy baby weighing 2.1kg with good apgar. Herniated uterus was repositioned back into abdominal cavity and closed in layers. After delivery of the baby, INJ. FENTANYL 100 mcg given Inj. Oxytocin 10 Units was added in 500ml Ringers lactate and was started as continuous infusion , followed by 5 units intramuscular oxytocin and Methergine 0.2mg im, given to maintain uterine tone,. Placenta was delivered in toto without any difficulty. Blood loss was around 700ml . 1800 ml of crystalloids was given. Urine output was 300ml. 30 ml 0.25% bupivacaine was given as local infiltration at incision site By the end of surgery, patient reversed with Inj.

Neostigmine 2.5mg and Glycopyrolate 0.5mg. Patient was extubated and transferred to post anesthesia care unit. Intra operatively multimodal pain management done with paracetamol 1g and Lornoxicam 8mg iv. Total duration of surgery was 180 minutes.

Patient was observed in PACU for one day. Initiated on orals after 4 hrs. Postoperative pain was sufficiently controlled by paracetamol 1g every 8th hourly, lornoxicam 8mg iv 12th hourly and fentanyl infusion 25-35 mcg /hr for 18 hours in post operative ward. Nebulisation was continued post operatively 8th hourly and was supplemented oxygen for 24 hours. She was ambulated on pod 1 and shifted to ward. Postoperative period was uneventful . She was advised contraception and discharged at 5th POD. X ray was done 6 weeks postpartum and is now on Orthopedician follow up.

Xray at 6 weeks after delivery

DISCUSSION

Sacrectomy for resection of pelvic neoplasia has a very high incidence of permanent neurological deficits post operatively. The supportive framework for all organs inside pelvis is compromised. So successful pregnancy in such patients is very rare. Very few reports of pregnancy in such patients have been published in literature , but almost all patients had undergone sacral reconstruction. Anterior herniation of gravid uterus is reported in literature. But case of posterior uterine herniation into the gluteal region is not yet reported.

This patient came at 28 weeks from periphery hospital for further management. She was examined and explained the risk of neurological complications after caesarean section due to distorted anatomy. As the bladder, bowel was compressed by the growing foetus, monitoring for pressure symptoms was done and same was explained to her to decide on timing of delivery.

Caeserean section in supine position was done electively, as she developed urinary retention. To avoid pressure on the foetus , careful postitioning was done and general anesthesia was given because of the altered spinal anatomy, foetus position and expected difficult in surgery. Wedge was not used as there was no compression of IVC by the posteriorly herniating uterus.

Lumboscaral reconstruction after sacrectomy could have avoided such posterior herniation. Continous monitoing of pressure symptoms, proper preoperative planning in conjunction with obstetrician will avoid untoward complication during delivery.

Consent Statement

Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

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