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ANAESTHETIC MANAGEMENT OF A FULL TERM EXTRAUTERINE ABDOMINAL PREGNANCY : A CASE REPORT.

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ABSTRACT

Introduction: Abdominal pregnancy is a very rare condition and is missed in most of the cases during antenatal period. We report a case of successful anaesthetic management of a full term pregnant female with extrauterine abdominal pregnancy posted for emergency LSCS. **Case Presentation:** A 27 year old pregnant female with 39 weeks of gestation with decreased perception of fetal movements was posted for emergency LSCS. She was a booked case and all her previous USG scans reported as single live intrauterine pregnancy with low lying placenta. But the last scan done at our hospital just before taking up for section revealed extrauterine pregnancy. Her vitals and systemic examination were unremarkable. Investigations were within normal limits. General anaesthesia was given as per hospital protocol since there was risk of intraoperative hemorrhage and live 2.7kg fetus was extracted through midline incision. She was managed with IV fluids on par with her blood loss and extubated and shifted to ward for monitoring. **Conclusion:** Adequate preparation and timely intervention was the key for the successful management of the case without any complication and morbidity for both mother and fetus.

INTRODUCTION:

An extrauterine abdominal pregnancy is a very rare form of ectopic pregnancy where implantation occurs outside the fallopian tube and ovary, within peritoneal cavity. First documented case was in 1708 where it was diagnosed during a laparotomy where they found excessive hemorrhage[1]. 1-2% of pregnancies are found to be ectopic, out of which 95% of them are in fallopian tube[2]. Extrauterine pregnancy has an incidence of 1:10000 births and 1:100 ectopic pregnancies[3]. It is associated with high maternal(0-20%) and fetal(40-95%) mortality[4]. The diagnosis is often missed during routine antenatal scans or falsely diagnosed as placenta previa or any other abnormal presentations. Maternal mortality and morbidity is very high if not diagnosed and managed appropriately. Extraction of dead fetus is the usual result when pregnancies cross 37 weeks. Very few cases of healthy viable fetus at term have been reported in the last decade from different countries worldwide.

We report a case of anaesthetic management of 27 year old female with extrauterine abdominal pregnancy with 39 weeks of gestation posted for emergency LSCS in whom the diagnosis was missed during her routine antenatal scans.

Case Presentation:

Parturient was a full term pregnant female, hailing from Assam with gravida 2 para 1 living 1 with previous history of normal delivery was posted for emergency LSCS. She came to our hospital with complaints of decreased perception of fetal movements at 39 weeks. She had visited our hospital at second month of pregnancy in view of pain abdomen where she was conservatively treated. Thereafter she was a booked case at a different government hospital where she followed her routine antenatal checkups and scans. USG scans done at third and seventh month of gestation were reported as single live intrauterine gestation with low lying placenta . When she visited the same hospital for decreased perception of fetal movements at 39 weeks, she was diagnosed to have transverse lie with placenta previa, and she was referred to our hospital for emergency LSCS. As per institution protocol which is a tertiary care centre, to rule out percreta/increta and degree of placenta previa, repeat scan was done in our institute and diagnosed to have extrauterine abdominal pregnancy with live fetus and was confirmed with MRI. She was posted for emergency LSCS as she had decreased perception of fetal movements. After the review of previous case reports and literature suggesting risk of intraoperative haemorrhage, general anaesthesia was planned with adequate blood and blood products in hand. Preoperative evaluation revealed no known comorbidities. Mouth opening was adequate with Mallampati grade 2 with normal neck movements. She was 155 cms in height, 56 kgs in weight, with a pulse rate of 80 bpm, blood pressure of 130/80 mmHg and systemic examination was unremarkable. Her hemoglobin was 11.5 g% with O positive blood group. Rest other investigations were within normal limits.

Anaesthetic Management: Two 18G IV cannula were secured on both the hands. Patient was preloaded with 10ml/kg of Ringer lactate. Inj. Metoclopromide 10mg and Ranitidine 50mg IV were given in the preoperative room. Anaesthesia workstation was checked prior to the case. Appropriate size ET tubes with airway adjuncts were kept ready. Drugs for general anaesthesia were loaded. Inj glycopyrrolate 0.2mg was given as premedication. Preoxygenation was done for 5 mins. Rapid sequence induction was performed with Propofol 2mg/kg and succinylcholine 1.5mg/kg and intubation was done using 7mm cuffed ET tube and bilateral air entry was confirmed and tube was fixed at 19cm and connected to ventilator and surgeons were allowed to start the procedure. Anaesthesia was maintained with oxygen/air(50:50), isoflurane, intermittent blouses of atracurium and patient was mechanically ventilated with IPPV. Right IJV was secured in

view of requirement of vasopressors and blood transfusion. After vertical paramedian incision, live 2.7kg fetus was extracted from the amniotic fluid sac present in the peritoneal cavity. Inj.Fentanyl 100mcg and inj.paracetamol 1g were given for analgesia after extraction of fetus. APGAR score of the baby was 8 after 5minutes. Placenta was attached to left sided broad ligament, so it was clamped and excised along with broad ligament with left salphingectomy. Hemostasis was achieved. Around 1200ml blood loss was noted intraoperatively and was replaced with crystolloids. Inj. Tranexamic acid 1g IV was given as per surgeon's request. Patient was hemodynamically stable throughout the procedure. Local infiltration for the skin incision was given with 10ml of inj.bupivacaine 0.25%. After adequate spontaneous respiratory efforts, patient was reversed with inj.neostigmine 2.5mg and glycopyrrolate 0.4mg, and was extubated on table. Patient was shifted to post operative ward where monitoring of vitals was done.



DISCUSSION:

It is estimated that prevalence of extrauterine abdominal pregnancy is one in 8099 hospital deliveries[5]. It is classified into two types as primary and secondary. In primary abdominal pregnancy, the fertilized ovum gets implanted directly in the abdominal cavity whereas in secondary which accounts for most of the advanced extrauterine pregnancy occurs due to rupture of fallopian tube ectopic pregnancy and gets replanted within the abdomen[6]. In this case, the abdominal pain that our patient experienced early in her pregnancy are highly suggestive of a tubal pregnancy that ruptured and got reimplanted within the peritoneal cavity. But there was no evidence of tubal or ovarian damage noticed in the intraoperative period .

The diagnosis was unfortunately missed during routine antenatal scans and USG findings were repeatedly misinterpreted as intrauterine pregnancy with placenta previa except for the last USG done at our hospital. It was diagnosed as extrauterine pregnancy and was confirmed by MRI. MRI played a decisive role in the preoperative diagnosis which made our anaesthetic management less stressful. This made us to have adequate time to prepare ourselves for management of any untoward complications like major blood loss and morbidity and mortality associated with it. It is closely correlated to the management of placenta following delivery. The feasibility of placental removal depends on the site of placenta, degree of invasion and the other organs involved in the surgical accessibility of the placental blood supply. Fortunately, surgical management was simple in this case because of placental implantation to left broad ligament and with no other organ involvement.

A recent report of 163 cases of extrauterine abdominal pregnancies demonstrated that the diagnosis of this condition is frequently missed, with only about 45% of cases diagnosed during antenatal period[8]. About 21% of babies born after extrauterine abdominal pregnancy have birth defects due to compression of fetus in the absence of amniotic fluid like limb defects, facial and cranial asymmetry, CNS malformation[7]. In this case, the baby was protected by the amniotic fluid sac, hence was having no deformities. Associated maternal mortality rate ranges between 0.5% to 18%[3] and perinatal mortality of 40 to 95%[4]. Mortality risk from abdominal pregnancy is 7.7 fold that of tubal pregnancy[8]. Only 10 to 25% of advanced abdominal pregnancy have chance of live fetus[9]. Bleeding is the single most life threatening complication during perioperative period for the mother which needs to be tackled efficiently while fetus can have congenital malformations which needs to be addressed in the postnatal period.

CONCLUSION:

For an anaesthesiologist, extrauterine abdominal pregnancy emphasizes the need to prepare ourselves for the management of haemorrhage which can happen intraoperatively and maintain the hemodynamics within normal limits with timely intervention with blood, blood products, fluid resuscitation and vasopressors.

A successful outcome of both mother and fetus was possible in this case by expectant management with good team work.

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