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Case Report
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Advanced Abdominal Ectopic Pregnancy that Ended with Double Obstetric Tragedy, Case Report and Literature Review

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Abstract

Abdominal pregnancy is the rarest form of ectopic pregnancy and has life threatening complication both for the mother and her fetus. It is called advanced abdominal pregnancy when it passes 20 weeks of gestational age. Most of the time it is missed diagnosed and it is intraoperative or late surprises. In resource limited set up it is intraoperative catastrophy where there is no high multidisciplinary expertise not available. High suspicion is needed in obstetrics care to identify such cases and to get the benifits of thougtfull preparation of the management if diagnosed preoperatively. This case report is to present our failure and misdiagnosis of the case of advanced abdominal pregnancy which later ended with double obstetric tragedy.

Keywords: Ectopic pregnancy, Abdominal pregnancy, Advanced abdominal pregnancy, Obstetrics tragedy

Introduction

Advanced abdominal pregnancy has been defined as a fetus living or showing signs of having lived and developed in the mother's abdominal cavity after 20 weeks of gestation and it is a rare obstetric complication with high maternal mortality and even higher perinatal mortality. Abdominal pregnancy historically defined as an implantation in the peritoneal cavity and can be primary or secondary. Studdiford is known for his criteria for primary peritoneal implantation diagnosis. (1) normal bilateral fallopian tubes and ovaries; (2) the absence of uteroperitoneal fistula, (3) pregnancy related exclusively to the peritoneal surface and early enough to eliminate the possibility of secondary implantation following a primary nidation in the tube. Secondary implantation always follows early tubal expulsion of the conceptus and embryo or fetal reimplantation in the peritoneal cavity. Abdominal pregnancy can be early or advanced based on gestational weeks. If it passes 20 weeks gestation it is taken as advanced abdominal pregnancy [1,2].

Despite advances in imaging and adequate antenatal care, abdominal pregnancy is always misdiagnosed once it passes its early gestational age and become advanced abdominal pregnancy. Most of the cases are intraoperative surprises. So high index of suspicion is required. Most common presenting symptoms are vague persistent abdominal pain and vague gastrointestinal symptoms like, nausea and vomiting [2-4]. Both perinatal and maternal mortalities are high. We present a case of advanced abdominal pregnancy misdiagnosed as intrauterine 3rd trimester pregnancy with placenta previa.

Case Presentation

This is G4P3 lady who does not remember her LNMP but she claimed to be amenorhic for last 8 months, she has no ANC visits. Currently she presented with history of lower abdominal pain which is dull aching type. She has intermittent vomiting. She came to our hospital for the above complain and for checkup of the pregnancy since her current pregnancy was different and cumbersome for her. She had no previous antenatal care for the past deliveries and she delivered her previous children at home with no difficulty. Physically examined at the OPD and she was slightly emaciated, abdominally she had mild tenderness on lower abdomen. With the suspicion of malpresentation of the fetus, obstetrics ultrasound was ordered and patient linked to the obstetrics unit with the

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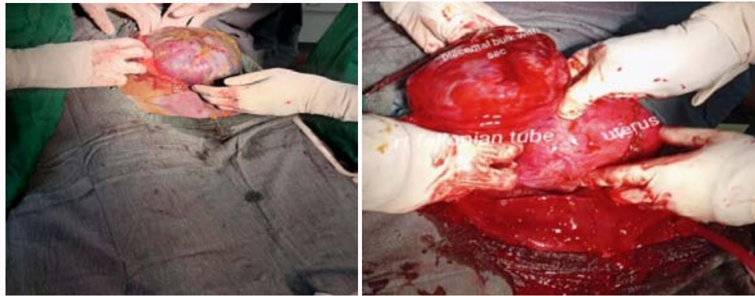

Figure 1: Intraoperative Photo.

diagnosis of urinary tract infection, 3rd TM Intrauterine pregnancy and breech presentation. Then ultrasound was done at radiology unit in the hospital and come with report of 34weeks singltone, breech presented, Intrauterine pregnancy. Then at the obstetrics ward bedside Ultrasound was repeated and reported a 33wks+4d, singltone obliquely lied alive fetus in the uterus, but the placenta was anterior and ahead of the presenting part completely, EFW was 2.1 kg adequte AF seen, but on the placenta there was multiple lacunas. With the diagnosis of early 3rd TM pregnancy and breech in oblique lie and placenta previa and suspicion of placenta adherent syndrome the patient admitted to the obstetrics ward and started dexamethasone for the fetal lung maturity, cross matched blood prepared and materials ready for emergency operation if any emergency bleeding occurs. In the next day the consultant obstetrician on duty also repeated the obstetrics ultrasound and put the above working diagnosis and to continue the above management. But the patient complains abdominal distension and difficulty of passing feces and flatus and the general surgical team evaluated her and nasogastric decompression done and relieved the distension, considering the mechanical compression of the malpositioned fetus on the bowels. But late in the midnight the fetus movement ceased and upon evaluation it was intrauterine fetal death. Then the next morning the team decided to deliver the fetus because once placenta previa was diagnosed and lately fetal IUFD, conservative management abandoned. Then patient taken to operation theater and infraumblical midline incision made and the surprise was faced. It was abdominal pregnancy, the placenta was tortous and anteriorly lied and inferiorly inserted. 2 kg dead fetus delivered. Since the placenta vessels were anteriorly tortous, the bleeding was torrential. The main bulk of the placenta was inferiorly to the rt broad ligament and delivered (Figure 1). There was oozers from the rt posterolateral aspect of the uterus and from adnexa at the rt side and suture hemostasis done, intraoperative blood transfusion done and hemostasis checked before abdominal cavity closure and found no active bleeding, abdomen closed, patient transfered to ICU, late after 12 hrs pt again became hemodynamically unstable inspite of the transfusion and revealed abdominal collection and relaparatomy done and there was massive hemoperitoneum which was secondary reactionary bleeding from the placenta beds of the rt adnexas and uterine wall, hysterectomy and rt side adenexectomy done and pt returned to ICU, lately after 24hrs patient passed away due to multiorgan failure secondary to hemorrhage.

Discussion

It is known that ectopic pregnancy is pregnancy where the blastocyst implants out of the endometrial cavity and the majority of ectopic pregnancies occur in the fallopian tubes. Abdominal pregnancy is one form of ectopic pregnancy and it is rare entity of ectopic pregnancies presumed to be occured 1 in 10,000 ectopic pregnancies. Abdominal pregnancy primarily occurs when the fertilized egg from the outset implants in the peritoneal cavity or secondarily reimplanted in the peritoneal cavity after expulsion of the ruptured fallopian tubal pregnancies or from uterine perforation [1,3].

Commonly abdominal pregnancy is missed. Specially once the gestation surpassed early trimester, it is high likely to be missed in advanced gestational ages due to the misplacement of the uterus by the advanced extrauterine fetus and the containing sac and pouch which mimics the uterine cavity. In our case it was in the 3rd trimester and the placental bulk was anteriorly and inferiorly ahead of the presenting part of the fetus which seems like complete placenta previa. The uterus was compressed and pushed retrograde which was missed easily [4-6].

In developing countries like ours due to the poor health sicking behaviour of the communities and poor adherence to antenatal care, women visit the health care facility late. Even in the primary level it is lexury to have antenatal follow up by ultrasound. So, they present to the next healthcare level late. In most of the general levels of the hospital a 24 hrs specialist radiology services are not available like ours. Most of the time advanced abdominal pregnancy poses diagnostic challenges with ultrasound accuracy of 50% even following strict criteria. But literatures mentioned that the major problem is failure of the sonographer to adher the basic principles. The following principles are essential for diagnosis of abdominal pregnancies.

1. D*emonstration of a gestational sac with a fetus outside a uterus or a uterus seen separate from a pelvic mass*

2. *Failure to demonstrate a uterine wall between the fetus and the urinary bladder*

3. *Showing a fetus closely approximating to the abdominal wall or*

4. *Localizing a placenta outside the uterine confines [5,7].*

But despite all most cases were missed so high index of suspicion is required specially in pregnant ladies complaining vague abdominal complain and which is different from the previous pregnancy periods in a woman who had experienced pregnancy before. Abdominal pregnancy is diagnosed most of the time in late stage and can lead to grieve complications. Preoperative diagnosis of abdominal ectopic pregnancy allows time for thoughtful preparation of the patient, family and medical team [8,9].

The risk of maternal death from abdominal pregnancy is 7.7 times greater than the risk of maternal death from tubal ectopic pregnancy and 90 times greater than the usual intrauterine gestation. According

to different reports in the past maternal mortality rates in the literatures reported from 4-29%. Fetal mortality report ranges from 75-95% [7,10]. Usually, the maternal death is due to uncontrollable hemorhage. Success in control of hemorrhage depends on the invasiveness and the site of placental involvement. In preoperative diagnosed cases and in advanced setups preoperative embolization of vessels supplying the placenta bed has been tried by some surgeons, thus decreasing intraoperative blood loss associated with removal of the fetus and placenta. Other surgeons prefere to leave the placenta *Insitu*. But retention of placenta *Insitu* is not without its risks and post operative morbidity like secondary hemorrhage, abscess formation, paralytic ileus, bowel obstruction, eclampsia-preeclampsia syndrome which all have been reported as morbid complications. Most of the difficulty comes from the placental attachment. According to the reviews the most common site of placental attachment was to the uterus and adnexas (47%), bowel (30%) and anterior and posterior pouches (8%), the liver, the omentum and abdominal wall each accounted 4% were less frequent sites of placenta attachment in abdominal pregnancies [11,12]. There are no universally accepted guidelines for the management of abdominal pregnancy whether preoperatively diagnosed or not. The management challenge lies on the placental management. Options of placental management include leaving *insitu* if the extractions of placenta is not easily achievable. Leaving the placenta *insitu* is for spontaneous absorption or use of methotrexate and consecuative follow up till placenta resorption. Few techniques used to control bleeding include, compression of bleeding site and ligation of vascular pedicles. Hysterectomy has also a place for cases that have attachment to the uterus [13,14]. In our case the pitfalls were placental location which was anterior before the fetal parts and it was tortous and bleeded torentially during fetal delivery and the placental vessels insertion inferiorly which was a bed to the rt adnexa and lateral uterine wall later rebleeded secondarily as reactionary bleeding ended with tragic outcome.

Conclusion. Advanced ectopic pregnancy is rare occurrence but with high mortality and morbidity for both the fetus and the mother. Early recognition and treatment of abdominal pregnancy may improve outcomes. However, despite advances in diagnostic modalities, the diagnosis of abdominal pregnancy is often a late diagnosis. So high level of suspicion is required for obstetrics care givers to diagnose early and preoperative multidisciplinary team preparation and to plan for the management of specific cases for better outcome in better setup.

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