



Post Term Extrauterine Abdominal Pregnancy, a case report

Abrehet Gebrekidan

Asst Prof, Asmara College of Health Sciences, Asmara, Eritrea.

***Corresponding Author: Abrehet Gebrekidan**

Email id: a_kidan@yahoo.com

ABSTRACT

Introduction

When implantation of the fertilized ovum occurs anywhere outside of the uterine cavity it is called ectopic pregnancy. Abdominal pregnancy is a rare type of ectopic pregnancy where the developing embryo implants and grows within the peritoneal cavity. Abdominal pregnancy is classified as being primary and secondary. Most abdominal (ectopic) pregnancies are secondary from aborted or ruptured tubal pregnancy. Extrauterine abdominal pregnancy is missed during antenatal period even with the use of ultrasound.

Case history

A 39 years old woman gravida VI, para V with history of severe supra pubic pain at 10 weeks of amenorrhea which was treated with Antipain and bed rest presented to the maternity hospital. During ante natal follow up abnormal fetal malpresentation and easily fetal parts were palpated. Diagnosis was missed during ante natal period. The eminent signs were client's history and flat abdomen x-ray which revealed the fetal demise. At first client was managed conservatively including induction of labor with oxytocin which failed. Later surgical intervention (Laparotomy) was performed and a dead fetus was extracted from the abdominal cavity. Umbilical cord was cut at its insertion to the placenta leaving the placenta in situ for its natural autolysis. On inspection intra-operatively the uterus, the left fallopian tube and both ovaries were intact and normal while the right fallopian tube was not identifiable. Post operative period and later follow up of the mother was awesome.

Conclusion

Diagnosis of abdominal pregnancy is missed during antenatal care despite the use of modern diagnostic tools like Ultrasonography, Magnetic resonance imaging etc as in many cases the exact location of the fetus and its size are not ascertained. High index of suspicion is needed to make first diagnosis of abdominal pregnancy. This case report is presented to draw attention to obstetrics and/or midwifery care providers the challenges related to diagnosis and its management to prevent life threatening complications in poorly resourced centers.

Keywords: Abdominal pregnancy, Ectopic pregnancy, Fetal demise, Laparotomy, Placenta and Umbilical cord.

INTRODUCTION

Ectopic pregnancy is when the implantation of the blastocyst occurs outside of the uterine cavity. Nearly 95% of ectopic pregnancies are implanted in the various segments of the fallopian tubes while 5% implant in ovary, peritoneal cavity or within the cervix [4]. Revised documents reveal that technical failure of tubal ligation, assisted reproductive technology; previous cesarean section delivery and sexually transmitted diseases are some of the reasons which increase ectopic pregnancies. An extrauterine abdominal pregnancy is one form of ectopic pregnancy where implantation occurs in the peritoneal cavity outside the fallopian tube and ovary.

Most abdominal (ectopic) pregnancies are secondary from aborted or ruptured tubal pregnancy. It accounts for 1% of all ectopic pregnancies [6]. Abdominal pregnancy is classified as being primary and secondary. Primary abdominal pregnancy is where implantation of the fertilized ovum occurs directly in the abdominal cavity while the fallopian tubes and ovaries are intact. Secondary abdominal pregnancy accounts for most cases of advanced extrauterine pregnancy that ruptures and gets implanted within the peritoneal cavity with the evidence of tubal or ovarian damage [5]. According to Cunningham et al 2007, more than 20 years ago the Centers for Disease Control and Prevention estimated its incidence to be 1 in 10,000 live births.

In Ibadan, Nigeria the incidence was 1: 654 deliveries [3]. Symptoms and signs of ectopic pregnancy are often absent. However, cessation of menstrual cycle, severe supra pubic pain associated with or without slight vaginal bleeding or spotting are characterized in early pregnancy, furthermore there is tenderness during abdominal palpation and bimanual pelvic examination [4].

The development of sensitive – human Chorionic Gonadotrophins (hCG) assays, along with the increasing use of ultrasound, radiology such as Magnetic Resonance Imaging (MRI), Computed Tomography Scanning (CTS) and laparoscopy has allowed for earlier diagnosis of ectopic pregnancies. However, diagnosis is missed in one fourth of reported cases [1].

This case report is a multipara mother with successful exploratory laparotomy and extraction of fetal demise following post term (extrauterine)

abdominal pregnancy that was not diagnosed during antenatal care. Her chief complaints were, overdue (that her last menstrual period was over 10 months) and cessation of fetal movement.

CASE REPORT

A 39 years old, Gravida VI and para V self-referred woman arrived at our maternity hospital with 10 months of gestation and absence of fetal movement. In her past gynecological history, she had no menstrual disorders and the first day of her last menstrual period was 10 months ago. Her past obstetric history was, first delivery at term vaginal stillbirth delivery after prolonged labor, second and third deliveries were emergency cesarean section due to transverse lie, both living. Fourth and fifth deliveries were normal vaginal deliveries, both living. She suffered from intermittent supra pubic and back pain during the first trimester (10 weeks) of this pregnancy and visited a health facility where she was assessed. Pain killer medications (tablets) was prescribed for her and she was advised to rest at home and to report back if symptoms get worse or do not stop.

Ante Natal Record review

She revisited the health facility at 16 weeks of gestation and stated that the supra pubic pain and other discomforts stopped about a week ago. After assessment, she was booked and was being followed by a maternal care provider (midwife) in a health station. During the course of her antenatal care follow up (34 – 38 weeks of gestation), the midwife noticed soft abdomen, abnormal lie/presentation of the fetus and easily felt fetal parts on abdominal palpation. During her visit to the health facility client reported to the midwife that this pregnancy was different from her previous ones. On palpation, the lie was abnormal, 40 weeks of gestation; fetal heartbeat was audible and normal rate. Client was reassured and advised. Ten days later she presented to the clinic and complained of overdue and reduction of fetal movement. Client was told to go to the hospital in her zone for skilled management.

Due to technical and social problems client did not want to go to the hospital she was referred to, instead she arrived at our maternity hospital (which was located very far) two weeks later. On admission, her general condition was stable and not

pale but looked tired. Her last menstrual period was 10 months plus ago. On assessment, vital signs were within normal parameters. Cardiovascular and respiratory examination no abnormalities detected. Her abdomen was hard, non-tender, fundal height 38 weeks of gestation with middle longitudinal abdominal scar, lie, presentation and position of the fetus not detected, not fetal heartbeat heard on auscultation. Both legs were severely edemated. Pelvic examination: external genitalia normal, vagina moist, cervix pushed anteriorly about 2 cm long, posterior fornix loaded with hard mass, no cervical dilatation and no vaginal bleeding.

Laboratory requests were hemoglobin level, white blood cell count, coagulation profile, blood group and Rh factor, urine for albumin, sugar and microscopic. All results were within normal parameters. As there was no ultrasound scanning machine then, flat abdomen x-ray was taken which revealed the overlapping of the fetal skull bones, extremities and vertebral column bones demonstrated (Spalding sign) fetal demise. Induction of labor with oxytocin was tried twice but failed. This was a signal of high suspicion of abdominal pregnancy.

Exploratory laparotomy was performed under general anesthesia following adequate pre-operative preparations. Vertical midline incision along the scarred skin (due to the previous classical caesarean section) was performed. Scarred skin was removed. Under the peritoneum there was a fetus covered by a pale thick membrane without amniotic fluid and was extracted. Umbilical cord was clamped and cut. Placenta was small and attached to the lower segment of the large bowel, omentum and slightly adhered to the right lateral side of the uterus. The remaining umbilical cord was cut at the insertion to the placenta and placenta was left in situ. On intra-operative inspection uterus was normal sized, right fallopian tube normal at the uterine insertion but the remaining parts was not identifiable. Left fallopian tube and both ovaries were intact. Abdominal drainages were inserted and abdomen was closed in layers. Blood loss was estimated to be 450 ml. She was transfused with one unit of blood intra-operatively though four units of cross matched blood were ready. Antibiotics were given. Drain tubes were removed in five days. Post-operative recovery was excellent. Two weeks after surgery laboratory requests on white blood cell count, hemoglobin and

urine tests were done. All results were within normal parameters. Client discharged home after a month in excellent condition and was counseled advised to come back for follow up.

DISCUSSION

Abdominal pregnancy is one of the rare cases and is always secondary implantation of the conceptus. Diagnosis of extrauterine abdominal pregnancy could be missed during antenatal care as in this case report which continued to post term with fetal loss. Clients with advanced abdominal pregnancy may present complaints of abdominal pain and later decreasing to absent fetal movement. In this case report, the pain experienced by the client during the first trimester, the midwife's report findings of abnormal fetal position, easily felt fetal parts on palpation and the damaged fallopian tube observed intra-operatively suggested that the conceptus had escaped from the ruptured right fallopian tube and continued its growth forming a vascular connection in the lower segment of large bowel, omentum and the lower lateral side of the uterus.

Cunningham et al [4] state that women with an established abdominal pregnancy are likely to be uncomfortable but not sufficiently to warrant absolute evaluation. Nausea, vomiting, flatulence, constipation, diarrhea, and abdominal pain may each be present in varying degrees. Multiparas may state that the pregnancy does not "feel right". Late in pregnancy, fetal movements may cause pain. This presented case also stated that her pregnancy was different compared to her previous pregnancies but did not have any gastro-intestinal symptoms mentioned above except the supra pubic pain she experienced in her first trimester.

The development of sensitive - hCG assays, along with the increasing use of ultrasound, radiology (MRI and CT) and laparoscopy have allowed for earlier diagnosis of ectopic pregnancies though, Cunningham et al 2010, [4] has documented that sonographic diagnosis of abdominal pregnancy is missed in half of cases as reported by Coste, et al., 1991 and Worley et al 2008. In this case report, due to the unavailability of ultrasound machine and other modern diagnostic tools, diagnosis was made based on the followings: Client's history of her first day of her last menstruation, expected date of confinement (calculated), absence of fetal movement, including

the midwife's note on unstable lie and finally the abdominal x-ray film which revealed demised fetus. Furthermore, the trail of medical induction of labor where the uterus failed to respond which was an additional perception for extrauterine pregnancy. An abdominal pregnancy is life threatening and clinical management depends on the gestational age at diagnosis [4].

To prevent life threatening complications exploratory laparotomy was performed. Pre-operative patient's evaluation and preparation, required laboratory tests including cross matched blood (4 units) were done.

Abdominal incision was vertical midline for most favorable exposure to deliver the dead fetus and locate the placental site. Following the extraction of the demised infant, removal of the placenta was expected to be hemorrhagic (due to the absence of constriction of hypertrophied blood vessels in the abdomen where it was inserted) thus placenta was left in situ. Although adequate cross-matched blood was prepared pre-operatively to arrest torrential hemorrhage, the small placenta that looked like being reabsorbed, was left in situ for its natural autolysis. Rahman et al [10], after revising ten cases, stated that leaving the placenta in situ has been associated with increased postoperative morbidity and mortality and have recommended the use of methotrexate to hasten involution and has been reported to cause accelerated placental destruction with accumulation of necrotic tissue and infection with abscess formations. Similarly, Cunningham et al 2010[4] Bergstrom et al, 1998, [9] reported, that when placenta is left in the abdominal cavity, it commonly causes infection with abscesses, adhesions, intestinal obstruction, and wound dehiscence. On the other hand, Krishna et al [7] reported that unless the placenta can be tied off and removed it may be preferable to leave it in place and allow for its natural regression.

Though continuous ultrasound scanning and use of methotrexate were recommended to follow the placental condition post operatively; in this case report due to limited resources such management was not implemented.

According to Cunningham et al [4], "with appropriate preoperative planning the mortality rate has been reduced from approximately 20 percent to less than 5 percent in the past 20 year".

Stevens CA [11] stated that fetal salvage in an abdominal pregnancy is much the exception rather

than the rule, and surviving fetuses may be abnormal. However, in his extensive review of abdominal pregnancies, he found that survival of infants delivered after 30 weeks was 63 percent and fetal malformations and deformations were only 20 percent. The most common deformations were facial or cranial asymmetry, or both, and various joint abnormalities. The most common malformations were limb deficiency and central nervous system anomalies. In this case report, since laparotomy was performed very late (10 + months), fetal malformation and/or deformities were not identifiable. With the limited resources the hospital had at that moment client was managed conservatively and no maternal adverse outcome was observed clinically till after two year of follow up.

CONCLUSION

Diagnosis of extrauterine pregnancy secondary to a ruptured ectopic pregnancy with secondary implantation is missed during antenatal care even with modern diagnostic tools because it requires experienced hands. The lesson of this case report is in poorly resourced areas the eminent indicators of suspicion such as supra pubic pain, the client experienced in her early pregnancy, the flat abdominal x-ray that demonstrated fetal demise and the failure of induction were highly suggestive diagnosis. Surgical management with adequate pre-operative preparation, appropriate intervention, intra-operative evaluations and making decision to prevent life threatening complications of the mother including strict post-operative follow up are crucial during the management process. Adequate counseling and clients' compliance also offer super outcome.

Consent

A verbal consent was obtained from the client (who lives abroad at present) for publication of this case report.

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