



CASE REPORT

Secondary Abdominal and Intrauterine Pregnancy with Lithopaedion

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Introduction

Abdominal pregnancy is defined as pregnancy anywhere within the peritoneal cavity exclusive of the tubal, ovarian, or broad ligament. Implantation can occur anywhere in the peritoneal cavity or abdominal viscera with the placenta attaching to and deriving blood supply from visceral organs like the liver, blood, spleen, bladder, etc. It is a serious and potentially life-threatening condition mainly due to the risk of massive hemorrhage from a partially or completely separated placenta at any stage of pregnancy. Heterotopic pregnancy is defined as a condition in which both extrauterine and intrauterine pregnancy coexist simultaneously [1].

Lithopaedion (stone baby) develops when an abdominal pregnancy remains undiagnosed for more than 3 months, remains without autolysis, and gets calcified. It usually presents with features of acute abdomen and obstruction. Less than 300 cases of lithopaedion are reported in literature [2].

The reported incidence of heterotopic pregnancy in spontaneous conception is 1:8000 to 1:30,000 [3] and 1:100 in assisted reproductive techniques [1]. Maternal mortality is around 7.7 times that of other locations of ectopic pregnancy and 90 times that of intrauterine pregnancy [4].

Case Report

A 28-year, unbooked lady with 34 weeks of pregnancy, had complaints of vomiting, loose motion, and abdominal distension for one week. For the above complaints, she was admitted to a Primary Health Centre (PHC) with no prior investigations including ultrasound. Ultrasonography could not be performed after admission as she was in labor and had a preterm vaginal delivery within 6 h. Her complaints gradually improved after delivery and so she was discharged from the hospital on the third day of delivery. She had a previous history of preterm birth but no history of any treatment for infertility, ectopic pregnancy, or previous uterine or fallopian tube surgery.

After one week of delivery, she again had bilious vomiting 7–8 episodes per day, generalized abdominal pain, and distension which was gradually progressive. She was unable to pass urine and motion and felt weak and dizzy in the past 7–8 days. Her appetite was reduced. So, she again reported to the hospital. She was investigated for the above complaints. Ultrasound findings revealed gross ascites and an abdominal

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ectopic pregnancy occupying the left lumbar region and lower abdomen. Foetus was dead with no cardiac activity. There was no specific gestational sac or liquor bag. However, no antenatal ultrasound was available with the patient.

The patient was referred to Pt. JNM Medical College Raipur for further management.

On examination, she was dehydrated, pale, and her eyes were sunken. Her abdomen was distended with gross ascites. The uterus could not be assessed easily. There was no bleeding from the vagina. Her hemoglobin was 4.7 gm%. Ultrasound suggested features of abdominal ectopic pregnancy with fetal demise, gross ascites, and left hydronephrosis.

Resuscitative measures were taken for hemodynamic stability. Supportive treatment was given including a blood transfusion and her general condition improved over 4–5 days. Complaints of nausea and vomiting subsided gradually and abdominal pain and distension decreased substantially.

CECT and MRI abdomen pelvis with CT ANGIOGRAPHY was done for detailed evaluation. MRI revealed a crumpled fetus with CRL of approximately 11 cm in the lower abdomen. No liquor was present. CT ANGIOGRAPHY revealed a vascular pedicle arising from the mesenteric root but there was no mesenteric ischemia (Fig. 1).

The decision for exploratory laparotomy was made with a multidisciplinary approach because of Abdominal Pregnancy. A team of senior gynecologists, surgeons, and anesthesiologists was involved.

Intra-op findings-On opening the abdomen, the greater omentum was covering a hard bony mass, i.e., calcified fetus (*lithopaedion*) of nearly 26 weeks gestation. It was present

in the left lower abdomen in a attitude of flexion. It was crumpled with a compressed and asymmetric face. There was no liquor sac. The umbilical cord was also not seen. Asymmetry was seen between the right and left limbs. A small calcified mass of 3×3 cm was found which might be a remnant of non-viable calcified placental tissue, this mass was found attached to a small muscle tissue of 2 cm on the right-sided fallopian tube and ovary. The muscle mass appears to be a rudimentary Anlagen. Small bowel, omentum, and mesentery were checked and were found to be normal. No internal communication or cavity was seen between the uterus and the rudimentary anlagen. She was discharged after 8 days of operation. Her recovery was good (Fig. 2).

Discussion

Abdominal ectopic pregnancy is associated with increased maternal mortality mainly due to hemorrhagic shock, perforation, bowel obstruction, fistula, and disseminated intravascular coagulation [1].

Prompt diagnosis in such cases remains a challenge probably due to their asymptomatic presence, potential space in the abdominal cavity, and the surrounding organs which provide nutrition to the growing fetus. However, Ultrasound imaging, CT, and MRI can aid in diagnosis [1]. Angiography can help to assess the vascularity of the growing fetus and to rule out ischemia and obstruction of the bowel.

A high index of suspicion is needed to make a first-time diagnosis of abdominal pregnancy. Diagnosis is missed in 1/4th of reported cases. Abdominal pregnancy represents only 1% of all ectopic pregnancies [4]. In the present case,

Fig. 1 a 3D CT- Scan Image showing Lithopaedion, b CT- Scan Image- Lithopaedion, placental tissue & Anlagen

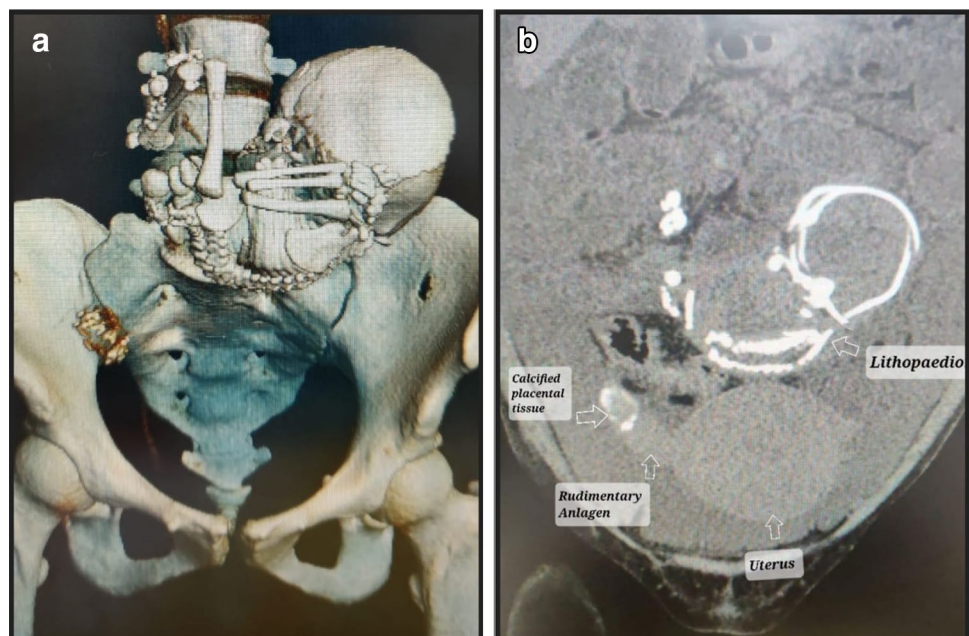
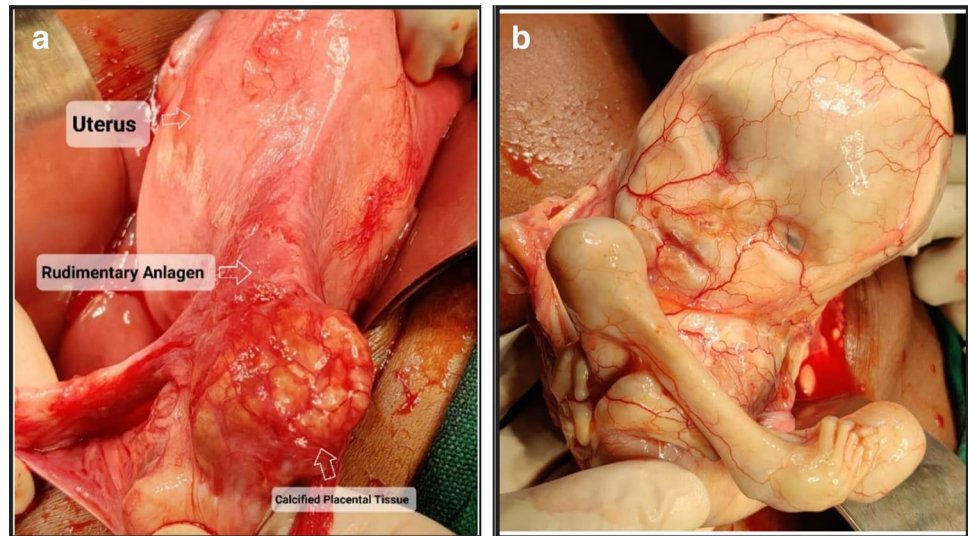


Fig. 2 **a** Intraoperative Image- Uterus, placental tissue and Anlagen, **b** Intraoperative Image- Lithopaedion



the patient gave birth to a preterm baby vaginally but the diagnosis of one fetus in the abdomen was missed at that time as she was unbooked and ultrasonography could not be performed before her delivery.

The most common symptoms in abdominal pregnancy are abdominal pain (100%), nausea and vomiting (70%), painful fetal movements (40%), and general malaise (40%), etc. [2]. This case presented with abdominal distension, pain, and vomiting which might be due to subacute intestinal obstruction. Abdominal pregnancy is often associated with fetal deformities such as facial and cranial asymmetry, and limb and joint deformity. Asymmetry was seen between the right and left limbs in the present case also.

The risk factors for ectopic gestation include a history of intrauterine device placement, pelvic inflammatory disease, treatment for infertility, endometriosis, use of assisted reproductive techniques, previous fallopian tube surgery, dilatation, and curettage [1]. Since there was no such risk factor present in this case and the intraoperative findings of a rudimentary horn suggest that it may be a case of secondary abdominal pregnancy.

The mainstay of management for abdominal pregnancy is surgery. Removal of the ectopic pregnancy mass could cause intractable hemorrhage and/or organ injury because of deep trophoblastic invasion into the surrounding tissue [4]. Management of the placenta poses the greatest problem due to the risk of massive hemorrhage. However, leaving the placental tissue or use of methotrexate is associated with a large number of post-op morbidity and mortality [4]. In our case entire calcified tissue along with the rudimentary horn was removed and hemostasis was achieved.

Most cases of abdominal ectopic pregnancies do not survive. But there are case reports available that show live abdominal pregnancy rarely even up to the third-trimester Pregnancies with some vascular attachment to the uterus

seem to be associated with a higher chance of fetal survival. Lithopaedion (“stone child”) may result from dead and calcified abdominal pregnancy when it goes undetected for long periods.

Conclusion

An intrauterine pregnancy should not rule out the simultaneous presence of extrauterine pregnancy. Initial assessment with a high index of suspicion is necessary as the symptoms are nonspecific. Ultrasound imaging and MRI remain a great aid in prompt diagnosis of abdominal ectopic pregnancy and its vascularity. A multidisciplinary approach is necessary for the successful management of such cases and to reduce maternal mortality. Peculiar to this case was its presentation as an intrauterine pregnancy who underwent preterm vaginal delivery along with retained lithopaedion (abdominal pregnancy) of 26 weeks gestation.

Declarations

Conflict of interest We declare there are no conflicts of interest for the conduct of this study and preparation of this manuscript which is to be published in compliance with the ethical standards section of the manuscript.

References

1. Kajdy A, Muzyka-Placzyńska K, Filipecka-Tyczka D, et al. A unique case of diagnosis of a heterotopic pregnancy at 26 weeks—case report and literature review. *BMC Pregnancy Childbirth*. 2021;21:61. <https://doi.org/10.1186/s12884-020-03465-y>.
2. Gebresenbet F, Mulat A, Nur N, et al. Neglected intrauterine fetal demise for more than two decades leading to the development of a

- lithopedion: a case report. *J Med Case Rep.* 2019;13:330. <https://doi.org/10.1186/s13256-019-2264-8>.
3. Maleki A, Khalid N, Patel CR, El-Mahdi E. The rising incidence of heterotopic pregnancy: current perspectives and associations with in-vitro fertilization. *Eur J Obstet Gynecol Reprod Biol.* 2021;266:138–44. <https://doi.org/10.1016/j.ejogrb.2021.09.031>.
 4. Elmiski F, Ouafidi B, Elazzouzi E, et al. Abdominal pregnancy diagnosed by ultrasonography and treated successfully by laparotomy: two cases report. *Int J Surg Case Rep.* 2021;83:105952. <https://doi.org/10.1016/j.ijscr.2021.105952>.

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