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A Rare Encounter of a Lithopedion: A Case Report

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ABSTRACT

Lithopedion (lithos = rock and paidion = child) is a rare condition that usually occurs in extra uterine pregnancies. The incidence of lithopedion is approximately 0.00045% of all pregnancies. In this condition, the ectopic fetus dies and is not absorbed by the mother's body. The dead fetus is coated by a calcified shell around it which protects it from maternal immunity. We report a case of a 65-year-old woman who had lithopedian for 20 years and was discovered incidentally at our center.

Keywords: *Calcinosis; Fetal Diseases; Pregnancy*

INTRODUCTION

The term lithopedion refers to an ectopic pregnancy in which the fetus dies and becomes calcified. It is very rare and has an estimated incidence of 1.5% for all ectopic pregnancies. About 300 cases of lithopedions are listed in the medical literature.[1]

The ectopic pregnancy usually escapes medical detection, and the fetus remains in an aseptic condition along with a favorable environment for calcification.[2]

Patients usually seek medical attention because of abdominal pain, abdominal mass, or pressure symptoms due to the compression of the bowel or bladder. In asymptomatic cases.it may be detected incidentally while imaging for some other complaints.

CASE REPORT

A 65-year-old lady presented to the emergency department after slipping while walking on level ground in May 2022. She sustained trauma on her lower back. She had no history of loss of consciousness, seizure, vomiting, or bleeding from body orifices following the fall. She had no significant past medical or surgical history. As regards her Obstetrics and Gynaecology history, she is gravida 10 para 6 with her last baby born 20 years ago. Her last menstrual period occurred at 45 years of age.

On examination, her vitals were stable. Detailed physical examination revealed a relaxed abdomen with intact hernial sites. The abdomen was soft, non-tender, and had normal bowel sounds. Oral analgesics were prescribed for her back pain. She

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was then advised for radiological investigations including an X-ray Abdomen and pelvis and an Ultrasonography of the abdomen to rule out abdominal organ injury as per trauma protocol. Pertinent laboratory investigations were also advised.

Abdominal X-rays (AP and Lateral) revealed a large calcified mass in the lower abdomen with outlines of bones, cranium, and spine as shown in Figure 1.

Figure 1: *AP and lateral abdominal X-ray showing calcified large mass with outlines of bones, cranium and spine*

The diagnosis of lithopedion was made and a further contrast-enhanced CT scan of the abdomen and pelvis was advised for further evaluation of the calcified mass and to look for any other significant findings.

On contrast-enhanced CT abdomen pelvis (Siemens Somatom AS 128 slice CT), a calcified ectopic fetus was noted which revealed the detailed anatomy of the fetus, especially on tridimensional MIP reconstructions (Figure 2). The length of the foetal femur was 65.2 mm which corresponded to foetal gestational age of approximately 34 weeks.

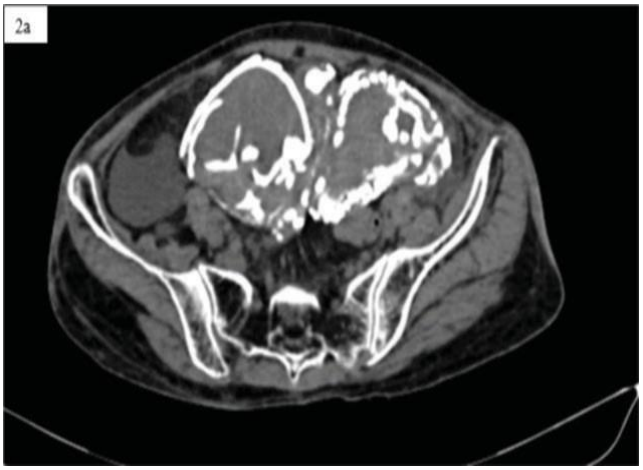

Figure 2: 2a. *CECT abdomen and pelvis showing calcified ectopic foetus.* ***2b.*** *CECT abdomen and pelvis coronal image showing preserved fetal skeletal anatomy*

Owing to the patient's age, relatively asymptomatic presentation, and refusal to undergo any kind of surgery, a conservative approach was opted for. She was discharged on 3rd day of hospital admission with oral analgesic for pain and advised for regular follow-up.

DISCUSSION

Extrauterine pregnancies often resolve spontaneously, even if the gestational age is advanced. However, in rare cases, the dead fetus may become too large to be reabsorbed by the mother's body. The maternal immune system recognizes it as a foreign body and reacts by coating the fetus with a calcium-rich substance that leads to mummification and petrification of the fetus.[3]

There is wide variation in the duration of lithopedion, between 4 and 60 years according to various literature. The fetus must be viable for at least 12 weeks for the development of lithopedion. Lithopedion is a very rare condition. Furthermore, the lack of symptoms in a significant number of cases precludes clinicians from early detection and management of the condition. The diagnosis is not suspected on clinical examination. However, a simple examination such as an abdominal X-ray or CT abdomen can lead to a definitive diagnosis. In our setting, poor socio-economic conditions and lack of regular health check-ups by the patient may further delay the diagnosis. Occasionally, they may present with recurrent abdominal pain, abdominal mass, chronic constipation, and obstructive uropathy. Patients may also present with complications such as abdominal abscess, bowel obstruction, adhesions, or fistula formation.[4]

Oden and Lee in 1940, described several prerequisites for the development of lithopedion.: 1) the pregnancy must be ectopic. 2) The ectopic fetus must be viable for at least 3 months (otherwise the fetus will be absorbed). 3) The ectopic pregnancy must escape medical notice. 4) The fetus should be sterile. 5) Appropriate conditions for calcium deposition such as minimal and sluggish circulation must be present.[5]

Lithopedion has become increasingly rare in recent years as a result of increasing prenatal consultations and easy access to health facilities, which allows for early identification and treatment of ectopic pregnancy. Nevertheless, few cases have been reported which is a reminder that inadequate health facilities and poor antenatal care are still prevalent, in areas of impoverished countries.

The rarity of the case, limited literature on this subject, and a lack of a clear consensus regarding the optimal treatment approach in asymptomatic cases have led to confusion regarding the most appropriate therapeutic approach. In the majority of reported cases, surgery has been the selected treatment option. The treatment regimen, however, must be tailored to the individual patient considering their age, symptoms, and socio-economic background. In asymptomatic patients, it is reasonable to manage with a conservative approach and regular follow-up.[6]

CONCLUSION

In conclusion, while lithopedion is increasingly rare due to improved prenatal care and healthcare access, reported cases highlight persistent gaps in medical facilities and antenatal care in impoverished regions. Given the limited literature and lack of consensus on treatment, management should be individualized based on patient factors, with surgery being the most common approach,

though conservative management may be appropriate for asymptomatic cases.

CONFLICT OF INTEREST

None

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