

The Lithopedion – An Unusual Case of an Abdominal Mass

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Case Report

Abstract: We report the rare case of a lithopedion in 70 year old female with chief complaints of mass per vaginum. Diagnosis was confirmed by plain abdominal X-ray and computed tomography and patient consequently undergone laportomy. Women have retained the calcified fetus for 37 years. "Litho-", the Greek prefix meaning stone, and "-pedion", the Greek suffix meaning "child," creates a literal translation of lithopedion as "stone child", "Lithopedion or stonebaby" is bony or calcified fetus resulting from an advanced ectopic pregnancy.

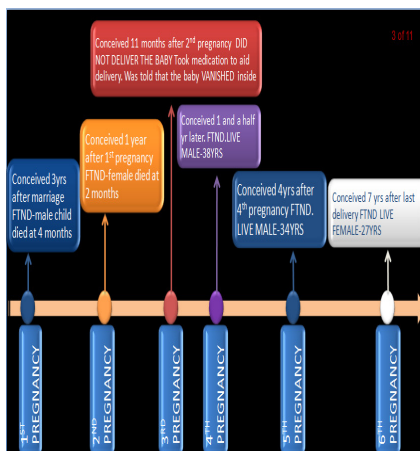
Keywords: Lithopedion, stoneboy.

Case Report

Here we report the case of 70 year old women who came with chief complaints of mass per vaginum since 5 years which gradually increased in size and becomes prominent on straining. No H/o difficulty in micturition or defecation.No gastro-intestinal or urological symptoms could be elicited. No history of chronic cough, constipation or debilitating illness. A complete blood count and tests of renal and liver function showed that these were within normal limits.

Obstetric History

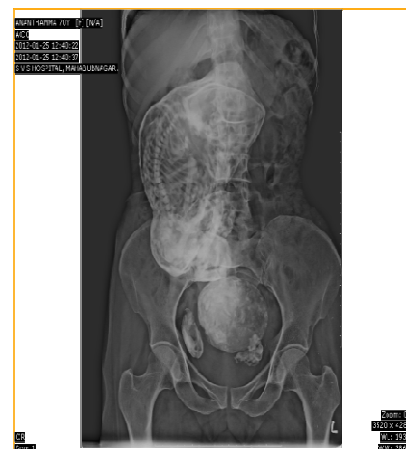
- Attained menarche at 13 years of age
- P6 L3 D2
- Married life- 45 years
- Attained menopause 20 years back

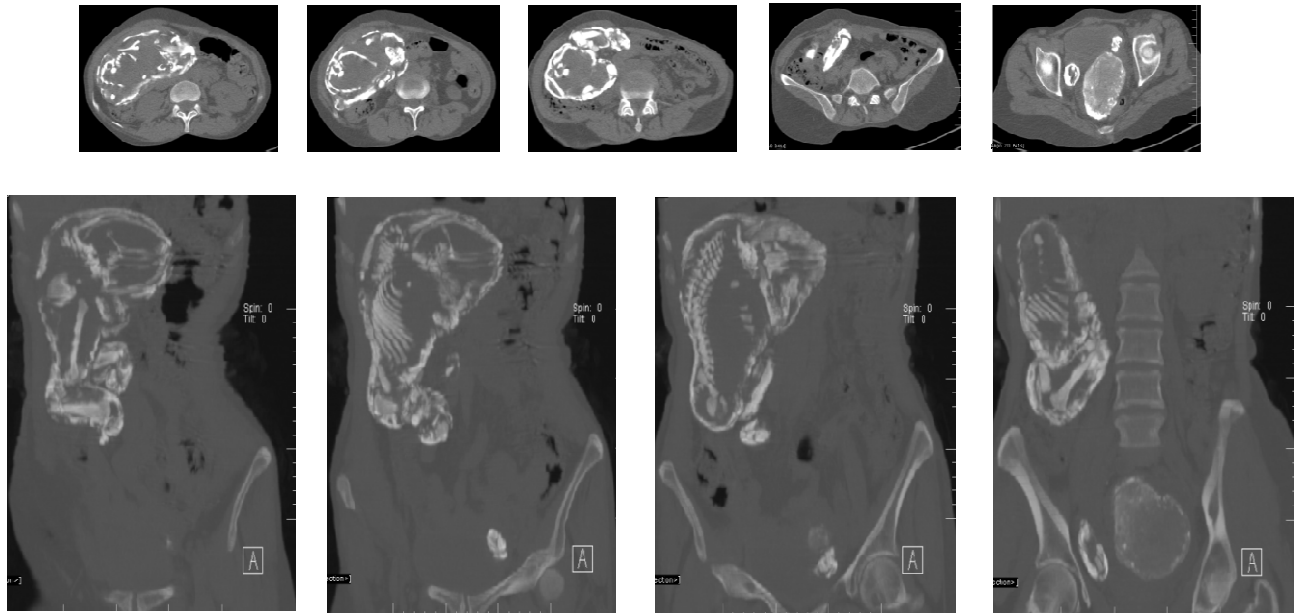


- Nect Abdomen –

On further examination following findings were noted:

- *Per Abdomen-stony hard irregular* Swelling was noted extending from right hypochondrium to right iliac fossa
- *Per vaginum-* 3rd degree UV prolapse with cystocele and rectocele, cervix unhealthy with 2 x1 cm erosion on both lips, no surface keratinisation or bleeding on touch; external os appears normal; no stress incontinence. Pap smear revealed chronic cervicitis.
- *Bimanual examination*-after reducing the prolapsed uterus appears normal in size, retroverted, mobile with supravaginal elongation. A hard mobile nontender 6x 5 cm mass was felt from posterior fornix
- *On Ultrasonography-* Densely calcified mass throwing an acoustic shadow was noted extending from the right hypochondrium to the pelvis. 7 x 8 cm discoid mass abutting the posterior surface of uterus (?calcified placenta) Low lying uterus with myometrial calcifications were noted
- X-ray abdomen -revealed a fetal skeleton extending from right hypochondrium to right iliac fossa along with three calcified masses in the pelvis





From the Above Features Diagnosis of Lithopedion Was Made

Laparotomy was done and a fetus with calcified membranes was removed along with a calcified mass probably the placenta and two calcified masses in the pelvis on either side representing the amputated feet of the fetus. Total abdominal hysterectomy with salpingoopherectomy was carried out.



Fetal femur length charts placed the gestational age approximately 34 weeks, while the period of lithopedion retention was estimated to be about 37 years



Discussion

The incidence of abdominal pregnancy is 1:11,000 pregnancies and lithopedion occurs in 1.5 to 1.8%^{1,2} of these cases and 0.0054% of all gestations^{1,2}. There have been less than 300 cases in 400 years of world medical literature^{2,3,4}. The first mention of a lithopedion in

literature comes courtesy of the 10th-century Spanish-Arabian physician and surgeon, Albucasis (936-1013). He described the discovery of a stone baby briefly in his life's work, the 30-volume Kitab al-Tasrif. But this Andalusian lithopedion was certainly not the first; within the last century, archeology has revealed several other, earlier stone babies. One case — dating to 1100 BCE —

was believed to be the oldest. If the dead fetus is too large to be absorbed by the mother body it becomes a foreign body to mother's immune system to protect itself from the possible infection the mother's body will encase the fetus in calciferous substance and the fetus is gradually mummified resulting in a stone baby. Lithopedion may occur from 14 weeks of gestation to full term. It is often usual that stone baby to remain undiagnosed for decades and found incidentally when taking plane films or ultrasonography for various other reasons. Patient ages vary between 30 and 100 years, while duration of lithopedion retention ranges from 4 to 60 years. (Our patient was 70 years old) Our finding correlates with published reports, which suggest that advanced abdominal pregnancies are invariably linked to low socio-economic status and poor access to antenatal care^{8,9}. Today the occurrence of lithopedion is rarer than ever, it is unknown among women who received adequate prenatal care or regular medical examinations so it is usually found only where modern health services unavailable or when a gross error has been made. Because of increased pelvic disease and uterine tubes surgery there has been an increase in incidence of ectopic pregnancy¹. On the other hand, the occurrence of abdominal pregnancy and lithopedion has tended to become even rarer due to medical and pre-natal care becoming more accessible to the population, with the possibility of early diagnosis and treatment of the pathology^{1,3}. The description of the lithopedion remains a harsh reminder of the poor antenatal care that currently prevails in the developing world.

Kuchenmeister⁵ classified three types

1. Lithokelyphos, in which only the fetal membranes are calcified and the fetus degenerates within them;
2. Lithokelyphopedion, when both the fetus and the surrounding membranes show calcium deposits,
3. True Lithopedion, where only the fetus is calcified (without calcification of the membranes)

D'Aunoy and King⁶ have listed four changes which an abdominal fetus may undergo if it is not removed:

- (a) Skeletonization, where only the bones of the fetus remain following the disintegration and absorption of the soft parts;
- (b) Adipocere, where the soft parts are replaced by fatty acids, soaps and salts of palmitic and stearic acids;
- (c) Suppuration, where the fetus is destroyed after an abscess has formed, usually due to *E. coli* infection. Under these circumstances the abscess may rupture into the vagina, the rectum or other parts of the bowel, and fetal bones may be discharged through any of the body's orifices, including the mouth.

(d) True Lithopedion Formation occurs if the fetus remains sterile and to varying degrees becomes infiltrated with calcium salts.

Symptomatology is very often nonspecific and of a chronic nature. It can include vague abdominal pain, chronic constipation, bowel obstruction and obstructive uropathy, or be an incidental finding in an asymptomatic patient, such as in our case. A plain X-ray is a valuable and inexpensive screening tool that usually confirms the diagnosis. Further investigations such as computed tomography (CT), magnetic resonance imaging (MRI) and barium enema are guided by the patient's symptoms, and are valuable in planning the surgical approach, when necessary⁷. There are cases reported without surgical extirpation of the lithopedion⁴. The surgery is frequently simple with low bleeding. No intraoperative death has been reported, even in elderly patients^{2,3}.

The diagnosis differentiates it from other calcified masses like

- ovarian tumors,
- myomas,
- inflammatory masses,
- urinary tract and bladder tumors, and
- epiploon calcifications.³

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