Skeletal remains of mummified foetus for 36 years in mother’s abdomen

B.S. Gedam, Yunus Shah, Shahaji Deshmukh, Prasad Y. Bansod*

Lata Mangeshkar Hospital & NKP Salve Institute of Medical Sciences and Research Centre, Nagpur 19, Maharashtra, India

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A B S T R A C T

Lithopedion is a rare event that occurs in 0.0054% of all gestations.1 According to one report there are only about 330 known cases of stone baby in the world (Gang sung, Min Lee et al., 2010). About 1.5–1.8% of the abdominal babies develop into lithopedion. We report a 60-year-old female with pain and lump in lower abdomen since 2 months. Possibility of tumour was on evaluation. Eventually a mass containing foetal skeleton was found in her abdomen which was traced to her pregnancy 36 years back.

1. Case report

A 60-year-old female presented to us on 5th August 2014 at Lata Mangeshkar hospital and NKP Salve institute of medical sciences with pain in lower abdomen and lump in lower abdomen since 2 months. She gave history of fever on and off since 15 days. The pain was continuous and nonradiating. The lump in the lower abdomen was painful and static. The patient had come from a village with poor socio-economic status.

Patient attained her menarche at around 13–14 years of age. She had regular periods. She attained menopause 10–12 years back. She had 4 issues. Patient conceived last in 1978. During pregnancy she attended a hospital where she was told by doctors that her foetus was dead. She was advised to get operated for the same. Fearing the operation she returned to her native village. Intermittently she used to get some abdominal pain for which she visited local physician who treated her symptomatically.

On abdominal examination abdominal fullness was present in the hypogastric region. Lump was palpable in the hypogastric region extending upto lower part of umbilical region. The lump was firm with no mobility.

USG abdomen done outside dated 26/7/2014 was reported as retrovesical large pelvic patchy calcification compressing the posterior bladder wall and right lower ureter. It appeared to be a large calcified fibroid. There was right-sided moderate hydronephrosis with hydroureter.

Computed tomography (Fig. 2) done on 7th August 2014 was suggestive of a well-defined abdomino pelvic mass lesion posterio superior to the uterus of size approx. 11 × 8 × 8 cm showing multiple skeletal structures raising the possibility of macerated foetus in the abdomen (Fig. 2). The lesion was compressing bilateral ureters in the distal part resulting in bilateral hydronephrosis, and hydroureter.

Her laboratory investigations were normal.

The patient was operated on 14th August 2014. Bilateral D-J stenting was done followed by exploratory laparotomy. An encapsulated mass was seen, which was densely adherent to ileal loops, sigmoid colon and rectum, anteriorly to uterus and left ovary. Right ovary and fallopian tube could not be visualized. In an attempt to separate the mass from adjacent structures, wall of the sac was opened which revealed turbid fluid and bones inside. The mass was excised with its contents (Fig. 1)

Histopathological examination of the sac revealed thickened sac, with few pleomorphic cells and many areas of calcification. Foci of mononuclear cells were seen with scattered hair shafts and trophoblastic proliferation. These findings were reported as consistent with lithopedion.

2. Discussion

“Litho-“, the Greek prefix meaning stone, and “–pedion”, the Greek suffix meaning “child,” creates a literal translation of Lithopedion as “stone child”, “Lithopedion or stone baby” is bony or calcified foetus resulting from an advanced ectopic pregnancy.1

This rare event occurs in 0.0054% of all gestations (Ede et al., 2011).

According to one report there are only about 330 known cases of stone baby in the world (Gang sung, Min Lee et al., 2010). The chance of abdominal pregnancy is one in 11,000 pregnancies; only between 1.5% and 1.8% of the abdominal babies develop into lithopedion (Costa et al., 1991; Frayer and Hibbert 1999).2–5
The first mention of Lithopedion in the literature comes courtesy of the 10th century Spanish Arabian physician and surgeon, Albucasis (936–1013) who described the discovery of a stone baby briefly in his life’s work, the 30-volume Kitab-Al-Tasrif.2–4

The earliest Lithopedion is one found in an archaeological excavation at bearing sinkhole, on the Edwards plateau in Kerr county, Texas dated to 1100 BC (Rothschild BM, 1993). Another early example was found in a Gallo-roman archaeological site in Costabelle, southern France dated to 4th century.2–4

In Zaire, a lithopedion was removed from the abdomen of a 37-year-old woman. Surgeons excised the mass — initially thought to be a large uterine fibroid — it was determined to be a stone baby. Foetus had survived, undetected, in its mother’s abdomen until about 32 weeks and there it remained for three years more. Although the mother said she knew about the pregnancy, when “the baby never came out,” she simply went on with her day-to-day life.6

In 2001, a 70-year-old Moroccan woman from Casablanca named Zahra Aboutalib, a young, pregnant woman in stalled labour in 1955, feared the prospect of a C-section so deeply — having just witnessed another woman die in front of her as a result of the surgery — that she fled the hospital and went home. Eventually, her pain subsided, but Zahra never returned to the hospital, even though her baby never showed up either. Her pregnancy had progressed outside the womb. Though she remained mostly unbothered by her macabre burden over the decades, one day, the sudden onset of abdominal pain and her son’s urging finally led her to back the doctor. The solid mass found by her physician was initially thought to be an ovarian tumour, but subsequent scans revealed a mystery that could not be solved locally. She was sent to experts in France, where surgeons eventually removed a seven-pound lithopedion from her abdomen. Zahra had been carrying her stone baby for close to half a century.7

In another case reported a connection between uterine and abdominal cavity which further revealed a calcified foetal skull in the cavity. A uterine incision surrounded by the old scar was observed in the anterior wall of the uterus. It seemed likely that rupture of the caesarean scar had caused the foetus to partly enter the abdominal cavity.8

A Lithopedion results from a primary abdominal pregnancy, or from a secondary abdominal implantation following tubal abortion or rupture of tubal or intrauterine pregnancy. It occurs when a sterile extra uterine foetus survives for more than 3 months in abdominal cavity (Irnick et al., 1970; Frayer and Hibbert 1999; Costa et al., 1991).8

If the dead foetus is too large to be absorbed by the mother body it becomes a foreign body to mothers immune system to protect itself from the possible infection. The mothers’ body will encase the foetus in calciferous substance and the foetus 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 may remain undiagnosed for decades and found incidentally when taking plain films or ultrasonography for various other reasons.9,10

D’Aunoy and King have listed four changes which an abdominal foetus may undergo if it is not removed:

(a) Skeletonization, where only the bones of the foetus remain following the disintegration and absorption of the soft parts.
(b) Adipocerous, where the soft parts are replaced by fatty acids, soaps and salts of palmitic and stearic acids.
(c) Suppuration, where the foetus 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 foetal bones may be discharged through any of the body’s orifices, including the mouth.
(d) True lithopedion formation occurs if the foetus remains sterile and to varying degrees becomes infiltrated with calcium salts.

Our case belongs to Skeletanization type.

This case correlates with published reports, which suggest that advanced abdominal pregnancies are invariably linked to low socioeconomic status and poor access to antenatal care.

Abdominal pregnancies have been reported of various durations. A patient in her third pregnancy was hospitalised because she did not feel foetal movements any more and was operated at 35 weeks of gestation.11
Another patient in China was informed that the foetus had died inside her in 1948, but she did not remove it earlier for lack of money who reported to doctors in 2013 after a gap of 65 years, is probably the longest known lithopedion in the medical literature.11

Our case had history of conceiving in 1978, after which she went to a hospital where the attending doctors at that time after examination advised the patient for some operative procedure. The patient got frightened hearing the same and returned to her native place, without any operation.

She came to us in 2014, after a gap of almost 36 years. After radiological investigation and operative procedure the patient was found to have a skeletonized lithopedion. Looking at the skeleton, it appears that it was skeleton of a full-grown foetus.

Conflict of interest

The authors have no conflict of interest.

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Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

Authors’ contributions

Dr. B.S. Gedam – Chief Operating Surgeon; Dr. Mohd. Yunus Shah – First Assistant Surgeon; Dr. Shahaji Satish Deshmukh – Second Operating Surgeon; Dr. Prasad Yogendra Bansod – Data Collection, Pictures, Writing.

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