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Case Report

Case report of a lithopedion of tubal location, in a young woman [☆]

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ABSTRACT

Lithopedion is a rare situation, corresponding to an ectopic pregnancy which evolves beyond the first trimester toward death and fetal calcification. This ectopic pregnancy is most often abdominal in location. Through this case report, we report the case of a lithopedion of left tubal localization in a young woman, diagnosed on CT scan following abdominal pain and confirmed by laparotomy with excision.

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Introduction

Lithopedion, also known as “stone baby,” corresponds to an ectopic pregnancy that progresses beyond the first trimester to fetal death and calcification [1]. It is a very rare situation with only about 350 cases reported in the medical literature [2].

We report the case of a 35-year-old woman who was seen for chronic abdominal pain and pregnancy desire. Ultrasound and then CT scan performed as a complement allowed the diagnosis of lithopedion. This diagnosis was confirmed by laparotomy which also allowed to confirm the left tubal location of the calcified embryo. To our knowledge, except for a case developed in a rudimentary noncommunicating uterine horn [3], the lithopedions reported in the literature

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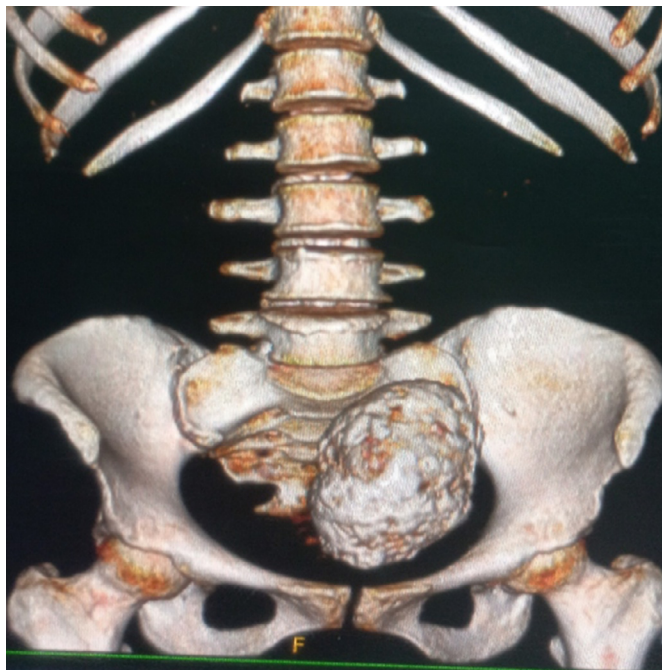


Fig. 1 – Abdominal CT in 3D reconstruction. A 3D CT reconstruction, anteroposterior view shows a left pelvic calcified mass corresponding to the lithopedion of 11 cm.

all follow an abdominal ectopic pregnancy, which makes this case of tubal lithopedion an exceptional case.

Observation

This was a 35-year-old female patient, 3 gestations, 3 pares, with no history of miscarriage, received at the ultrasound room for chronic pelvic pain and a desire for pregnancy. Ultrasound revealed a calcified left lateropelvic mass generating significant acoustic shadows, which made its exploration difficult. The transvaginal ultrasound showed a normal sized uterus with an empty cavity. In addition, abdominal-pelvic CT scan without contrast injection showed a grossly oval, heterogeneous, calcified left latero-uterine mass of 11 × 7 cm in transverse diameters, in which fetal bones with a skull, orbits, vertebrae, and a well-individualized femur were distinctly seen (Figs. 1 and 2).

The biparietal diameter was 52 mm and the femoral length was 41 mm estimating the age of the arrested pregnancy at approximately 23 weeks of amenorrhea (Fig. 2C).

The duration of retention is not formally known, but her last child is 7 years old and there is a notion of secondary amenorrhea 2 years ago.

Thus, the diagnosis of lithopedion with pregnancy stopped at 23 weeks of amenorrhea was made and we referred her to her gynecologist who decided to perform an excision. Laparotomy revealed a left adnexal ectopic mass, of stony hardness, without contact with the digestive structures. The uterus and the right adnexal structures were unremarkable. The procedure consisted of a left adnexectomy and total extraction of

the stony mass roughly shaped like a flexed fetus, weighing 460 g (Fig. 3). The postoperative course was uneventful.

Discussion

Lithopedion is the result of an undiagnosed and untreated abdominal pregnancy [4]. However, in our case, the location of the ectopic pregnancy, based on surgical exploration, appears to be left tubal and not abdominal. In the literature, we have found only one article of lithopedion with a tubal location [3], which makes this case all the rarer.

In the different observations published in the literature, the age of the patients varied between 23 and 100 years; two-thirds of them were older than 40 years [5]. The age of our patient was 35 years. The period of fetal retention ranged from 4 to 60 years [6]; in our case, it was estimated to be about 2 years.

Fetal death occurred between 3 and 6 months of pregnancy in 20% of the cases as noted in our observation, between 7 and 8 months of pregnancy in 27% of the cases and at term in 43% of the cases [2,5,7].

Lithopedion often remains asymptomatic for years. Pelvic pain or mass, a feeling of abdominal heaviness or compressive signs may be reported [5,7].

Some associated complications have been reported: post-traumatic intestinal perforation [2]; intestinal obstruction; fistulization of fetal parts in the abdominal wall, rectum, or vagina [4]; fetal-pelvic disproportion during a concomitant pregnancy [8]; pelvic abscess [6,8].

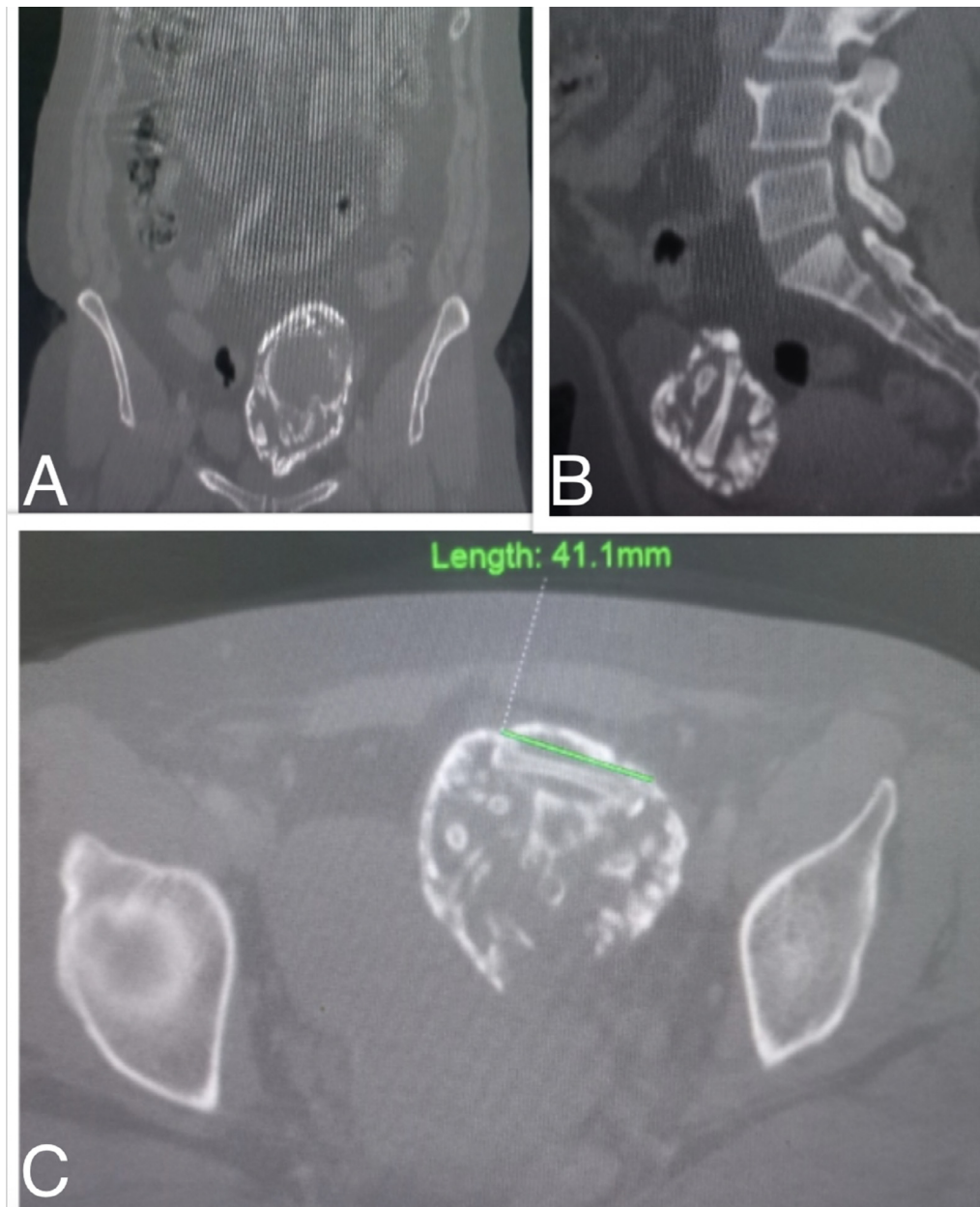


Fig. 2 – Bone window of abdominal CT, coronal (A) sagittal (B), and axial (C). Bone window CT reconstructions reveal details of fetal anatomy with calcified shell, fetal head and femur. The femur measured at 4.1 cm thus estimating the age of the fetus at about 23 weeks of amenorrhea.

El Hag et al. [9] reported the association of an ectopic trophoblastic tumor with lithopedion. The diagnosis of lithopedion is suggested by the clinical history, by the presence of pelvic mass and by the abdominal X-ray which showed the presence of the calcified abdomino-pelvic fetus [3,4]. Ultrasound shows uterine vacuity and a nonspecific appearance of abdominopelvic calcifications [7]. In our case, the extent of acoustic shadowing did not allow to identify fetal structures on ultrasound, but it showed an empty uterine cavity.

CT and MRI are not necessary for the diagnosis, but they can be useful to specify the uterine vacuity (when ultrasound does not allow it), to look for adhesions of the mass and to establish the assessment of associated lesions [5,7].

In our case, the CT scan confirmed the diagnosis of calcified ectopic pregnancy. The vacuity and normal appearance of the uterus were confirmed by transvaginal ultrasound and laparotomy.

The differential diagnosis of lithopedion arises with other calcified abdominopelvic masses such as ovarian teratomas [5,10], calcified fibroids, inflammatory masses, urinary or digestive tumors, and epiploic calcifications [5]. The occurrence of complications even after several years of evolution makes surgical removal the best therapeutic choice for lithopedion, especially since the postoperative course is generally simple, as in our patient's case, with few bleeding complications. No postoperative deaths have been reported [5].

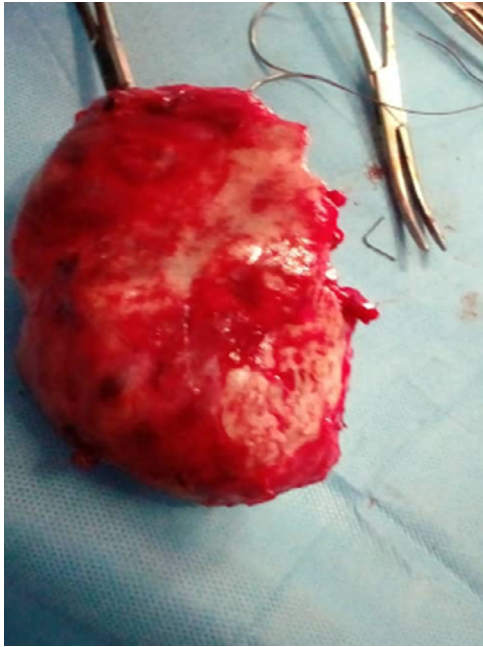


Fig. 3 – Postoperative image of the lithopedion.
 Postoperative image of the stony mass roughly shaped like a fetus, measuring nearly 12 cm in craniocaudal length and a weight of 460 g.

Conclusion

Lithopedion is a particular and rare form of chronically evolving calcified ectopic pregnancy, more often discovered incidentally. It is rare in young women and the physician should consider it in young infertile women where the retention period may be short with minimal symptoms and a vague obstetrical history. In order to avoid the terrible complications that it can cause over time, the diagnosis of lithopedion should be suggested in any young or elderly woman who presents with a calcified abdominopelvic mass, not very specific on ultrasound. The CT scan is not systematic but remains useful in the assessment of local lesions.

Patient consent

The patient has signed a free and informed consent to the anonymous publication of the material contained in this article.

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