
Lithopedion Causing Intestinal Obstruction

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Summary

The formation of a mummified intra-abdominal pregnancy (lithopedion) is rare. A 25 year old Para 4 + 0 gravida 5 presented with features of intestinal obstruction and a four year history of an intra abdominal mass. Examination revealed a solid mass in the right upper quadrant. Ultrasound imaging showed a poor echo-calcified mass while an erect abdominal x ray revealed foetal bones within the abdominal cavity. At laparotomy a lithopedion with a normal uterus was found. Her last normal delivery was one year prior to this current presentation.

A lithopedion causing a mass effect (intestinal obstruction) and predating a normal intra uterine pregnancy followed by spontanous vertex delivery has not been reported in Kenya.

Introduction

Abdominal pregnancy accounts for up to 1.4% of all ectopic pregnancy (1). It is usually associated with high morbidity and mortality. A large lithopedion is a rare obstetric phenomenon with less than 300 cases reported worldwide (2,3). It occurs when a fetus dies during an abdominal pregnancy, is too large to be absorbed and instead calcifies to shield the mother from the dead tissues and infection. A case of a large lithopedion presenting with intestinal obstruction has not been reported in Kenya.

Case Report

This is a case report of a 25 year old woman, Para 4 + 0 gravida 5 who was referred to Kisii level 5 Hospital (KL5H) with a diagnosis of intestinal obstruction. She presented with complaints of abdominal pain, constipation, abdominal distension and vomiting for two days and a four year history of a non progressive abdominal swelling. On examination there was a large mass in the right upper quadrant, extending from the umbilicus to the epigastric region, hard in consistency, measured approximately 20 by 20 cm, non tender, mobile with ill defined margins. Abdominal ultrasound revealed a poor echo-calcified mass on the right hypochondrium measuring 11.7 by 9.2 cm and a normal liver, gall bladder, kidneys and spleen appear normal. A plain abdominal x-ray revealed a non viable intra abdominal gestation,

with positive Spalding sign.

Further obstetric history was then sought. She reported to have been pregnant 4 years prior to the time of presentation. She had not attended any antenatal care clinic and had perceived foetal movements. Nine months later, she reported having lower abdominal pain radiating to the back which was increasing in intensity and was admitted in labour for delivery. Two days later however, the abdominal pain ceased and no more foetal movements felt. She was released from the health facility and discharged with no explanation as to why there was no delivery. The abdominal swelling progressively reduced in size, with the development of swelling in the right upper abdomen with intermittent low grade pains.

Three years later in August 2008, the patient presented to KL5H and a diagnosis of a non viable extrauterine pregnancy was made. She declined admission. She later conceived and delivered at home to a live female infant in May 2009.

With the presence of a mummified intra-abdominal pregnancy and features of intestinal obstruction, she was optimized for a laparotomy. At surgery a 25 cm wide hard mass (Figure 1) in the right upper quadrant was dissected off the gall bladder, the right lobe of the liver, hepatic flexure and anterior abdominal wall. The uterus, ovaries, adnexia were normal. The thick capsule covering the mass was opened to expose a hyper flexed fetus (Figure 2) which was extended to confirm a fully

formed fetus (Figures 3). The patient recovered and was discharged on the 10th post-operative day.

Discussion

This case is presented due to its uniqueness. This patient had an abdominal pregnancy which mummified and she was able to conceive three years later and carry a baby to term.

Abdominal pregnancies are rare and are secondary to aborted tubal pregnancy or intra abdominal fertilization of ova (1, 4). The mortality and morbidity are higher as the pregnancies advance in gestation. (5). The patients commonly present with an abdominal mass, nausea and vomiting, painful foetal movements and less frequently vaginal bleeding (6). Recurrent pain in the gravid patient may signal an abdominal pregnancy. Patients may experience spurious labour, loss of foetal movements and persistence of abdominal swelling (6). This is followed by history of lactation which can either be spontaneous or expressive.

Though diagnosis is usually through ultrasound, this may not be very sensitive. Magnetic resonance imaging (MRI) is now the most accurate investigative tool (5, 7). There are cases reported which do go undetected/unnoticed till at an advanced gestational age while in others the diagnosis is only made after a laparotomy (6).

Once the diagnosis of abdominal pregnancy has been made, surgical intervention is vital to avoid complications. Methotrexate treatment has been used with minimal success (8). Methotrexate can work better in early gestation, but shows minimal response in larger gestations, where it may not be recommended due to its potential to lead to sepsis and maternal death (9). Complications after lithopedion formation include volvulus formation (10), intestinal obstruction, haemorrhage, disseminated intravascular coagulopathy, fistula formation, and cephalopelvic disproportion of a concomitant pregnancy (11) and pelvic abscess (12). The case presented had complication of partial intestinal obstruction.

In advanced abdominal pregnancy resorption is not possible. It therefore undergoes a calcification process, resulting in the formation of a lithopedion. The diagnosis is usually confirmed with good imaging technique, and also based on the high clinical index of suspicion. In situations where the clinician is not alert to the clinical details then the case can be easily missed as was seen in this patient. Return of fertility after abdominal preg-



Figure 1. Mass excised, still in its sac



Figure 2. Sac peeled off, foetus in hyperflexed position.



Figure 3. Foetus extended.

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nancy is not assured though patients do resume normal menstrual cycles and conceive thereafter with the lithopedion in situ, as was seen in the case presented.

The important lesson to be learnt in the case presented is that in the developing countries where alternative medicine is common many patients may fear undergoing surgery and may therefore decline only to present later with serious complications as seen in this case.

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