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LITHOPAEDON PRESENTING AS INTESTINAL OBSTRUCTION WITH A PREVIOUS CO-EXISTING INTRA-UTERINE PREGNANCY

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LITHOPAEDON PRESENTING AS INTESTINAL OBSTRUCTION WITH A PREVIOUS CO-EXISTING INTRA-UTERINE PREGNANCY

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SUMMARY

This is a case report of a 25 year old lady Para 4 + 0 gravida 5, who was referred to Kisii level 5 hospital from a district hospital with a diagnosis of intestinal obstruction and a four year history of an intra-abdominal mass. A year prior to the admission she conceived and delivered vaginally at home but the baby died a few hours after the delivery. On examination on admission there was a solid mass in the right upper quadrant. Ultrasound imaging showed a poor echo-calcified mass suggestive of a colonic metastatic mass and an erect abdominal x ray revealed foetal bones within the abdominal cavity. At laparotomy a lithopedion with a normal uterus was found. The presence of a lithopedion and a normal intra-uterine pregnancy followed by spontaneous vertex delivery has not been reported in Kenya. Patients with lithopaedon can present with intestinal obstruction as a complication but the presence of a co-existing pregnancy is rare.

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 (less than 300 cases reported worldwide) occurs when a fetus dies during an abdominal pregnancy, and it is too large to be absorbed instead it 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

A 25 year old woman, Para 4 +0 gravid 5 was referred to Kisii level 5 hospital with a diagnosis of intestinal obstruction. She had presented with complaints of -progressive abdominal pain, constipation, abdominal distention and vomiting for two days. There was 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 × 20 centimetres, non-tender, mobile with ill defined margins, and not attached to the abdominal wall. An

impression of partial intestinal obstruction, possibly due to the extraluminal mass pressing on the gut was made. The patient was managed conservatively for partial intestinal obstruction with a warm soapy enema, nil per oral, nasogastric tube suction and intravenous fluids.

An abdominal ultrasound revealed a poor echo-calcified mass on the right hypochondria region measuring 11.7 × 9.2 centimetres, the liver was normal in size and echo pattern. Biliary ducts and gall bladder, kidneys and spleen appeared normal. A conclusion of a right calcified hypochondrial mass was made with a differential of a colonic metastatic tumour. A plain abdominal x-ray revealed a non-viable intra-abdominal gestation, with positive Spalding sign.

Following the investigation findings a detailed obstetric history was then sort from the patient. She reported to have been pregnant four years prior to the time of presentation. She had not attended any antenatal care clinic, but she had perceived foetal movements. In December 2005, she reported having had lower abdominal pain radiating to the back which was increasing in intensity. She was admitted in labour for delivery in a local health facility. Two days later the abdominal pain ceased, there were no more foetal movements reported thereafter. Ironically the patient

was released from this health facility and allowed home with no explanation given to her why there was no delivery. She did not bother to inquire further. Thereafter the abdominal swelling progressively reduced in size, with the development of swelling in then right upper abdomen with intermittent low grade pains.

Three years later in August 2008, the patient presented to Kisii level 5 hospital as narrated above. The patient was advised to be admitted for surgery but declined and went home. In May 2009, she delivered at home to a live female infant who died a few hours after delivery.

Management on admission: With the presence of of mummified intra-abdominal pregnancy and, constipation a decision to carry out an exploratory laparotomy was made. An informed consent was obtained from the patient. Intra-operative findings were: A hard mass approximately 25cm in diameter in the right upper quadrant, attached to the gall bladder, the right lobe of the liver and anterior abdominal wall. It was dissected away from the liver, gallbladder, hepatic flexure of colon and haemostatic stitch put on the liver. The mass was excised completely. The stomach, small gut and large gut were normal. The uterus, ovaries, adnexia were normal. The thick capsule covering the mass was opened to expose a hyper flexed foetus figure below. A conclusive diagnosis of a lithopaedion was made. The patient made a full recovery and discharged on the tenth post-operative day.

Fig. 1
Abdomen before operation



Mass excised, still in its sac



Sac peeled off, foetus in hyperflexed position.



Foetus extended.



DISCUSSION

This case is presented due to its uniqueness. The patient had an abdominal pregnancy which mummified and she was still able to conceive three years later and carry a baby to term. She did not attend any antenatal clinic and the outcome was a perinatal death.

Abdominal pregnancies are rare and secondary to aborted tubal pregnancy or intra-abdominal fertilisation of the ovum (1,2) very few cases have been reported in the literature. The mortality and morbidity are higher as the pregnancy advances in gestation. This results from the implantation site which is usually in the major pelvic vessels and the omentum (3). The patients commonly present with an abdominal mass, nausea and vomiting, painful foetal movements and less frequently vaginal bleeding (4). These were the symptoms our patient presented with at the initial presentation. 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 (4). This is followed by history of lactation which can either be spontaneous or expressive.

Though diagnosis is usually through ultrasound though this may not be very sensitive, magnetic resonance imaging (MRI) is now the most accurate imaging technique investigative tool (3,5). There are cases reported which do go undetected/unnoticed till at an advanced gestational age (4). while in others the diagnosis is only made after a laparotomy (4).

Once the diagnosis of abdominal pregnancy has been made, surgical intervention is vital due to its high mortality and morbidity. Methotrexate treatment has been used on early gestation with minimal success (6). 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 (7). Complications after lithopaedion formation include volvulus of the cecum, (8) intestinal obstruction, haemorrhage disseminated intravascular coagulopathy, fistula formation, and cephalopelvic disproportion of a concomitant pregnancy, (10) and pelvic abscess (11). To prevent such complications, surgical removal of a lithopaedion should be considered, balanced against the high morbidity associated with this surgery. 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 lithopaedion.

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. The management of the condition once diagnosed is surgery.

Return of fertility after abdominal pregnancy is not assured though patients do resume normal menstrual cycles and conceive thereafter with the lithopaedion *in situ*, as was seen in the case presented which is the first reported case in Kenya.

The lesson learnt in the case presented is that in the developing countries where alternative medicine is common many patients fear undergoing surgery and may decline only to present later with serious complications as seen in this case of poor obstetric outcome and intestinal obstruction.

REFERENCES

1. Atrash, H. K., Friede, A. and Hogue, C. Abdominal pregnancy in the United States: frequency and maternal mortality. *Obstet. Gynecol.* 1987; **69**: 333-337.
2. Dover, R. W. and Powell, M. C. Management of a primary abdominal pregnancy. *Am. J. Obstet. Gynecol.* 1995; **172**: 1603-1604.
3. Varma, R., *et al.* successful outcome of advanced abdominal pregnancy with exclusive omental insertion. *Ultrasound obstet. gynaecol.* 2003; **21**:192-194.
4. Rahman, M. S., Al-Suleiman, S., Rahman, J. and Al-Sibai, M. H. Advanced abdominal pregnancy—observations in 10 cases. *Obstet. Gynecol.* 1982; **59**: 366-372.
5. Gavin, L. and Cinzia, C. Clinical use of magnetic resonance imaging for the evaluation of abdominal pain during pregnancy. *Inter. J. Gynecol. Obstet.* **111**: 82-90.
6. Zinger, M. and Rosenfeld, D. Failed treatment of abdominal pregnancy with methotrexate. *J. Reprod. Med.* 2001; **46**: 392-394.
7. MiSuk, K., Soyoon, P. and Tae Sung, L. Old abdominal pregnancy presenting as an ovarian neoplasm. *J. Korean Med. Sci.* 2002; **17**: 274-275
8. Glass, B. A. and Abramson, P. D. Volvulus of cecum due to lithopedion. *Am. J. Surg.* 1953; **86**: 348-352.
9. Zaheer, S. A. Acute intestinal obstruction caused by lithopaedion. *Br. J. Surg.* 1971; **58**: 401-402.
10. Leke, R. J., Nasah, B. T., Shasha, W. and Monkam, G. Cephalopelvic disproportion at term involving a lithopedion: A case report. *Int. J. Gynaecol. Obstet.* 1983; **21**:171-174.
11. Tarun, J. and Eckert, L. O. Abdominal pregnancy with lithopedion formation presenting as a pelvic abscess. *Obstet. Gynecol.* 2000; **96**: 808-810.