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CASE REPORT

Mass in the Left Iliac Fossa—a Diagnostic Dilemma

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Abstract Clinical diagnosis of abdominal masses remains a challenge to this day; in spite of the availability of advanced imaging facilities, we fail to reach a definitive diagnosis in a few cases and have to resort to a laparotomy, which reveals unexpected findings. We present a case of a 70-year-old lady who presented with pain abdomen and loss of appetite for 3 months; clinical examination revealed a fixed intra-abdominal firm to hard mass in the left iliac fossa. CT scan of the abdomen showed a large cystic hypodense lesion in the left iliac, lumbar and hypogastric region with no definite organ of origin.

The patient underwent an exploratory laparotomy and in toto excision of the cyst; on opening the cyst wall, we found multiple daughter cysts in a pool of thick, purulent fluid. Microscopic examination confirmed the presence of a hydatid cyst

Primary peritoneal hydatid cysts are a rare entity and constitute around 2 % of hydatid cysts found in the human body. Very few cases of primary peritoneal hydatid cyst have been reported from non-endemic areas, and this case report highlights the need to maintain a high index of suspicion while evaluating cystic abdominal swellings.

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Introduction

The abdominal cavity is commonly described as the 'Pandora's box', as one is bound to be astonished after opening it. Abdominal masses have always been a challenge to the clinician; the complex anatomy and the presence of major organs makes clinical diagnosis a formidable task.

Masses arising from the left iliac fossa are comparatively fewer in number compared to the upper abdomen and the right iliac fossa; most common differential diagnosis for a left iliac fossa mass include diverticulitis, colon cancer, ovarian mass, fibroids, lymph node swelling, enlarged undescended testis, loaded colon and a spigelian hernia [1].

Here, we report a case of a 70-year-old female who presented with a painless left iliac fossa mass, and even after extensive radiological studies, we were unable to arrive at a definitive diagnosis, but on opening the abdominal cavity, we encountered a rare and unusual presentation of a common disease.

Case Report

A 70-year-old elderly lady presented with complaints of pain in the abdomen for 3 months associated with loss of appetite. She hailed from Haveri district of north Karnataka in India.

Physical examination revealed a mass in the left iliac fossa, measuring around 10×6 cm; it was a smooth swelling, firm on palpation and fixed. Borders were well defined except the lower border, which could not be palpated. A provisional clinical diagnosis of an ovarian mass was made.

The patient was subjected to an ultrasound of the abdomen which showed a well-defined cystic lesion with mixed echogenicity in the left iliac fossa extending up to the left hypochondrium measuring about 8×10×16 cm.

CT scan of the abdomen revealed a large well-defined hypodense cystic mass adherent to the parietal wall and lying just below it measuring 22×8×8.4 cm present in the left iliac fossa and extending into the left lumbar and hypochondriac regions; the ovaries could not be clearly defined in the scan.

The contents of the cyst appeared hypodense and ill defined, and hence, no definite diagnosis could be established (Fig. 1).

A working diagnosis of a benign cystic lesion was made, and ultrasound-guided aspiration of the cyst contents were tried, but it proved to be unsuccessful.

We decided to perform an exploratory laparotomy

A midline incision was made and the abdominal cavity explored.

A large mass was found on the left side of the abdomen, involving the left iliac fossa, lumbar region and hypochondrium; the mass was extending laterally into the left paracolic gutter and found to be adherent to the parietal wall all along its surface. Adhesions to the abdominal wall musculature were present anteriorly, laterally and posteriorly (Fig. 2a).

The ovaries and the uterus were found to be atrophic and not related to the mass; bowel loops were normal; rest of the solid organs i.e. liver, spleen and kidney appeared normal.

The cyst was extracted in toto; on opening up the cyst, we were surprised to find multiple daughter cysts along with thick infected fluid (Fig. 2b, c).

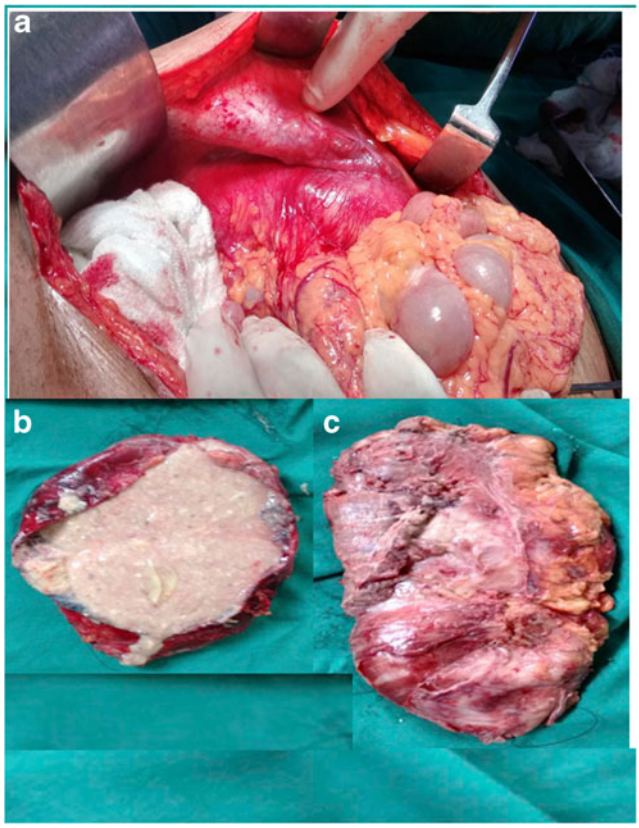

Fig. 2 **a** Intraoperative picture showing adhesions to the parietal wall. **b** Cyst opened showing daughter cyst. **c** Cyst extracted in toto

Microscopic examination confirmed the presence of scolices and protoscolices, and a diagnosis of a primary peritoneal hydatid cyst was made.

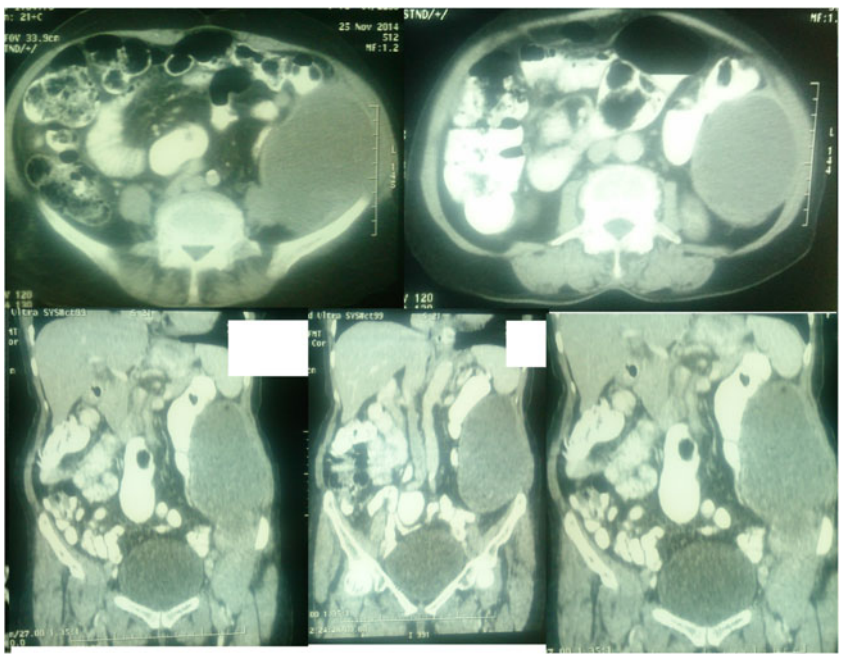

Fig. 1 CT scan images of the patient with left iliac fossa mass

The patient was started on albendazole in the immediate postoperative period and had an uneventful recovery.

Discussion

Most commonly, peritoneal hydatidosis has been described secondary to hepatic hydatidosis; it usually occurs when there is rupture of the hydatid cyst in the liver and secondary seeding of the peritoneum [2]. But it can also occur de novo in the peritoneum and has been termed as a primary peritoneal hydatid cyst.

The incidence of primary peritoneal hydatidosis is around 2 % [3], very rarely described in non-endemic areas such as India and more commonly described by authors from the Mediterranean region.

Ultrasonography of the abdomen remains the primary modality of diagnosing hydatid cysts; el Mansari O et al. in their case series on intraperitoneal hydatidosis were able to diagnose seven cases out of 10 (70 %) by ultrasonography alone [4].

In our patient, probably the presence of thick infected fluid in the cyst obscured the classical radiological findings.

CT scan is a useful adjunct when the diagnosis by ultrasound is doubtful and to demonstrate anatomical relationships.

MRI is more useful for diagnosing hydatid cyst at locations such as skeletal muscle, but no data is available regarding its usefulness to diagnose a primary peritoneal hydatid cyst.

Primary peritoneal hydatid cysts are difficult to diagnose preoperatively, as demonstrated in a study by Mosca et al. where four out of nine cases had to be diagnosed intraoperatively, in spite of use of relevant imaging [5].

Conclusion

In this article, we describe an unusual and rare presentation of abdominal hydatid cyst disease as a mass in the left iliac fossa; *Echinococcosus granulosus* is a versatile parasite and is known to colonise almost every part of the human body, and hence, it becomes imperative for the practising physician to consider it as a differential diagnosis of any cystic lesion in the body, even though imaging might not be contributory.

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Conflict of Interest The authors declare that they have no competing interests.

Informed Consent Informed consent was taken from the patient and her relatives as per the guidelines given by the Declaration of Helsinki and its later amendments for publication of photographs in a scientific journal.

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