



E-ISSN: 2708-1508
P-ISSN: 2708-1494
IJCRS 2024; 6(1): 61-64
www.casereportsofsurgery.com
Received: 01-01-2024
Accepted: 05-02-2024

Dr. Chelly Cyrine
Assistant Professor,
Department of Obstetrics and
Gynecology, Farhat Hached
Hospital, Sousse, Tunisia

Dr. Ben Ali Yasmine
Junior Resident Department
of Obstetrics and Gynecology,
Farhat Hached Hospital,
Sousse, Tunisia

Dr. Ben Rejab Oumayma
Junior Resident Department
of Obstetrics and Gynecology,
Farhat Hached Hospital,
Sousse, Tunisia

Dr. Bayar Amal
Assistant Professor,
Department of Obstetrics and
Gynecology, Farhat Hached
Hospital, Sousse, Tunisia

Dr. Sabri Youssef
Professor, Department of
General Surgery, Farhat
Hached Hospital, Sousse,
Tunisia

Dr. Sassi Boughizane
Professor, Department of
Obstetrics and Gynecology,
Farhat Hached Hospital,
Sousse, Tunisia

Dr. Bouchahda Rim
Associate Professor,
Department of Obstetrics and
Gynecology, Farhat Hached
Hospital, Sousse, Tunisia

Dr. Derouiche Mouna
Associate Professor,
Department of Obstetrics and
Gynecology, Farhat Hached
Hospital, Sousse, Tunisia

Corresponding Author:
Dr. Ben Ali Yasmine
Junior Resident Department
of Obstetrics and Gynecology,
Farhat Hached Hospital,
Sousse, Tunisia

Omental hydatid cyst in pregnant women: A rare localization

Dr. Chelly Cyrine, Dr. Ben Ali Yasmine, Dr. Ben Rejab Oumayma, Dr. Bayar Amal, Dr. Sabri Youssef, Dr. Sassi Boughizane, Dr. Bouchahda Rim and Dr. Derouiche Mouna

DOI: <https://doi.org/10.22271/27081494.2024.v6.i2a.98>

Abstract

Hydatid cysts are a public health problem in endemic areas. They mainly affect the liver and lungs. Omental involvement is rare, accounting for less than 1% of hydatid localizations. We report a rare case of a 26-year-old pregnant woman who presented with abdominal pain and sensation of a mass in the pelvic area for six months. Physical examination revealed abdominal distension and tenderness in the right iliac fossa. Omental hydatid cyst was suspected on ultrasound and confirmed by magnetic resonance imaging and management was done with cystectomy.

Keywords: Hydatid cyst, omentum, pregnant woman, surgery, case report

Introduction

Hydatidosis is a disease caused by the development in the human body of the larval form of the small dog taenia: *Echinococcus granulosus* [1]. Tunisia, a traditional breeding country, remains one of the countries most affected by *Echinococcus granulosus*. Hepatic and pulmonary involvement is predominant, but the cyst may affect all organs [2]. Omental hydatid cysts are rare and misleading, accounting for less than 1% of hydatid localizations [2, 3]. We report an observation of an omental hydatid cyst in a pregnant woman with clinical presentation, imaging findings, and pathologic characteristics.

Observation

A 26-year-old female patient, living in a rural area, presented with dull pelvic pain of six months duration without anorexia, nausea, vomiting, weight loss, fever or lethargy; followed by abdominal swelling. She had no other medical history; she delivered a baby by normal vaginal delivery 2 years ago; the date of last period was unknown.

Clinical examination revealed abdominal distension; she had tenderness in the right iliac fossa.

Pelvic ultrasonography revealed a well-defined, heterogeneous solid cystic cyst of 13 × 11 cm with no internal flow on color Doppler imaging located in the pouch of Douglas (Figure 1), also an incidental finding in a 20-week pregnancy.



Fig 1: A well-defined, heterogeneous solid cystic cyst of 13 × 11 cm with no internal flow on color Doppler imaging located in the pouch of Douglas

The MRI: showed a 13 × 11 cm well-circumscribed, multiloculated cystic mass that may be consistent with a peritoneal or ovarian hydatid cyst (Figure 2).



Fig 2: a well-circumscribed, multiloculated cystic mass

Anti-echinococcus antibodies (IHA) screen was negative. The fact that the patient was pregnant and the uterus had caused a mass effect on the cyst, which can increase the risk of its rupture and cause anaphylaxis. We decided to operate on the patient. We proceeded to a midline laparotomy; exploration showed a huge cyst measuring 150*130 mm rising from the omentum complicated with omental torsion (Figure 3, 4), so we performed omental detorsion and cystectomy. The cyst was sent for histopathological examination and the abdominal cavity was washed with 10% hypertonic saline. Progress was good, ultrasound showed an evolving pregnancy, and the patient was discharged two days later.



Fig 3: A) the gravid uterus, B) the hydatid cyst

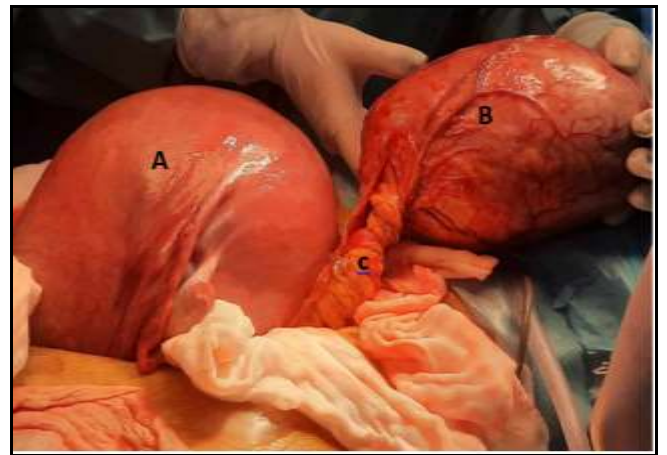


Fig 4: A) the gravid uterus, B) the hydatid cyst, C) omentum

The diagnosis of hydatid cyst (Figures 5, 6) was confirmed by pathologic examination.



Fig 5: Daughter cysts



Fig 6: Hydatid cyst

Discussion

Hydatid cyst is a parasitic disease that is a public health problem in endemic areas, particularly around the Mediterranean basin [1]. Hydatid cysts are generally found in liver and lungs, according to literature rare localizations can be identified such as in ovaries, skeleton, kidney, brain, etc., omentum most likely less than 1%. Some cases of omental localization have been reported but we can't find substantial references and sufficient data [2-4].

Hydatid cyst of the omentum is extremely rare and is due to contamination via the hematogenous route, suggesting a rupture of the pulmonary or hepatic filter by the parasite to gain access to the general circulation [1].

Symptoms of Echinococcus granulosus infection depend on the site, size and developmental stage of the cyst cycle. Thus, the patient may be asymptomatic, present with abdominal pain, vomiting, nausea, abdominal distention due to mass effect, or with more severe condition such as anaphylactic shock due to cyst rupture [5].

Computed tomography and ultrasonography contribute to the diagnostic process [5]. The most characteristic ultrasonographic signs of hydatid cysts are the presence of one or more peritoneal cysts, preferentially located in the oblique region. The contents of these cysts are anechogenic or slightly echogenic, and the proligilar membrane may be visualized within the cyst when detached, the "snake sign" [6].

Magnetic resonance imaging (MRI) is considered the gold standard for evaluating large, problematic, or equivocal cysts. MRI typically shows a T₁ hypointense, T₂ hyperintense lesion with peripheral hypointensity associated with the fibrous capsule. The diagnosis is facilitated by the observation of daughter cysts and intracystic membranes. [7].

Due to its different evolutionary stages, a hydatid cyst can be assimilated to numerous differential diagnoses such as cystic retroperitoneal masses (Dermoid cysts), tubercular abscesses or pyogenic abscesses. If necessary, magnetic resonance imaging can be used for differential diagnosis [5].

Biologic studies are limited to hydatid serology. It is of great diagnostic value in case of a positive result. However, in extrahepatic localizations, biology, especially hydatid serology, is not always sensitive (30-70%) [1].

Hydatid cyst in pregnant women essentially poses a problem of therapeutic attitude in relation to the timing and the choice of the procedure to go to.

We may mention that pregnancy itself, as it develops, exerts additional abdominal pressure and can cause catastrophic complications, as it can weaken the cyst, cause it to fistulate or even rupture, which in the short term can be fatal (Anaphylactic shock).

In the absence of complications requiring urgent treatment, the second trimester is considered the best time to operate on a pregnant woman because of the lower risk of miscarriage (0 vs. 12% in the first trimester) and preterm delivery (5-8% vs. 30% in the third trimester) [8].

The treatment of choice for hydatid cysts is total cystectomy without contamination. The association of antiparasitic therapy to surgical management in pregnant women is still controversial in the literature because of its embryotoxic effect confirmed in animals [9,10].

Conclusion

Hydatidosis is a very common parasitosis in Tunisia and can develop in any organ of the body, which means that doctors should consider this diagnosis in the event of a cystic tumor of any organ in a patient living in an endemic area. Finally, we must stress the importance of primary prevention of this disease in order to reduce its incidence in our country.

Conflict of Interest

Not available

Financial Support

Not available

References

1. Yadav SK, Ruchal A, Gaurav B, Bhattarai B, Khatiwada P, Shrestha A. Retroperitoneal hydatid cyst challenging the diagnosis: Case report with review of literature. *Int J Surg Case Rep.* 13 déc 2023;114:109106.
2. Bellil S, Limaïem F, Bellil K, Chelly I, Mekni A, Haouet S, *et al.* Épidémiologie des kystes hydatiques extrapulmonaires: 265 cas en Tunisie. *Médecine Mal Infect.* 1 mai 2009;39(5):341-343.
3. Eckert J, Deplazes P. Biological, Epidemiological, and Clinical Aspects of Echinococcosis, a Zoonosis of Increasing Concern. *Clin Microbiol Rev.* janv 2004;17(1):107-135.
4. Salamone G, Licari L, Randisi B, Falco N, Tutino R, Vaglica A, *et al.* Uncommon localizations of hydatid cyst. Review of the literature. *Il G Chir - J Ital Surg Assoc.* août 2016;37(4):180.
5. Belouad M, Benlghazi A, Allaoui M, Benali S, Bouhtouri Y, Messaoudi H, *et al.* Kyste hydatique pelvien primitif, une localisation inhabituelle: à propos d'un cas. *PAMJ - Clin Med [Internet].* 2 juin 2022 [cité 19 mars 2024];9(5). Disponible sur: <https://www.clinical-medicine.panafrican-med-journal.com/content/article/9/5/full>
6. Brunetti E, Tamarozzi F, Macpherson C, Filice C, Piontek MS, Kabaalioglu A, *et al.* Ultrasound and Cystic Echinococcosis. *Ultrasound Int Open.* sept 2018;4(3):E70-8.

7. El Alaoui O, Jelti O, Lachkar A, Abdeljaouad N, Yacoubi H. Primary Hydatid Cyst of the Gluteal Muscle: A Case Report. *Cureus*. 16(1):e51629.
8. Rachad M, Fdili FZ, Slimani O, Chaara H, Bouguern H, Melhouf MA. La rupture intra péritonéale d'un kyste hydatique au cours de la grossesse: à propos d'un cas rare. *Pan Afr Med J* [Internet]. 2012 [cité 19 mars 2024];11. Disponible sur: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3283012/>
9. Gul M, Younis I, Rathinavelu B, Ben Ghashir NS, Seeli RK, Hatem Chahine R, *et al.* Management of Hydatid Cysts in Pregnancy: A Report of Two Cases and a Review of Literature. *Cureus*. 15(10):e46425.
10. Tekin AF, Yilmaz H, Kara T, Seçkin E, Aybay MN, Alkan E. A very rare case: Hydatid cyst surrounding uterus and magnetic resonance imaging findings in the pregnant patient. *Radiol Case Rep*. 1 févr 2019;14(2):168-170.

How to Cite This Article

Cyrine C, Yasmine BA, Oumayma BR, Amal B, Youssef S, Boughizane S, *et al.* Omental hydatid cyst in pregnant women: A rare localization. *International Journal of Case Reports in Surgery*. 2024;6(1):61-64.

Creative Commons (CC) License

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.