

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20230834>

Case Report

An interesting case of disseminated hydatid disease with paraovarian hydatid cyst and endometriotic cyst occurring in the same ovary

Farheen Rahman*, Ramna Banerjee, Nipanjan Ghosh, Debashish Banerjee, Dinesh Singh

Department of Obstetrics and Gynaecology and Department of Surgery, Apollo Multispeciality Hospitals, Kolkata, West Bengal, India

Received: 08 February 2023

Accepted: 03 March 2023

*Correspondence:

Dr. Farheen Rahman,

E-mail: drfarheen07@yahoo.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial

ABSTRACT

Hydatid disease is a parasitic disease which affects the liver and lungs mostly. Involvement of the pelvic organs is rare and presents with varying symptoms which often make it difficult to diagnose. In this report, we present a case of disseminated hydatid disease with cysts in the liver, spleen peritoneum as well as a paraovarian hydatid cyst concomitantly occurring with an ovarian endometriotic cyst on the same side.

Keywords: Hydatid disease, Ovarian hydatid cyst, Endometriotic cyst

INTRODUCTION

Hydatid disease is a zoonotic disease caused by infection with *Echinococcus granulosum*, a tapeworm with dog as the definitive host and livestock (sheep, cattle, goats, pigs) as the intermediate host. Humans are affected by ingestion of parasitic eggs in contaminated food, water or soil. Direct contact with animal hosts can also cause infection. It has a worldwide distribution of 1-2 per 100,000 and is mostly endemic in Middle East and Mediterranean countries.¹ Liver and lungs are most commonly affected. Bones, kidneys, spleen, muscles and CNS are less frequently affected. We present a case report of a 45 years old lady who presented with disseminated hydatid disease involving the liver, spleen and unusually, the left ovary.

CASE REPORT

A 45 year old lady presented in the OPD with irregular delayed periods since 4-5 months, abdominal swelling since 1-2 months and loss of appetite. She had no history of fever or altered bowel and bladder habits. Her periods lasted for 3-4 days and occurred at 45-60 day intervals with

average flow and no dysmenorrhea. She had undergone a vaginal delivery 21 years back and had no significant medical or surgical history. She had history of contact with livestock, mainly cattle. On examination, a firm mass with ill defined margins was found in the left hypochondrium extending to the midline and mildly tender. A non tender firm pelvic mass was also palpable ~ 14 weeks uterine size. Her complete blood count, renal and liver function tests were normal. Tumor markers namely-Alpha fetoprotein, Beta hcG, CA125, CEA, CA 19-9 were all within normal limits. USG whole abdomen revealed multiple large intraperitoneal, pelvic and intra-hepatic cysts in various stages of development suggestive of hydatid cysts. CT scan revealed multiple thin walled cystic SOLs in both lobes of the liver, largest being 8x7.3cm. A large thin walled exophytic cystic lesion ~17.3x16x18.8 cm was noted in the lower pole of the spleen displacing the left kidney inferomedially and compressing the adjacent part of the ureter leading to mild upstream hydronephrosis. A large well defined exophytic complex cystic mass ~11.8x10.6x14.9 cm was noted in the left adnexal region closely abutting the left ovary. Few similar lesions were present within the peritoneum, all suggestive of hydatid cysts (Figure 1).



Figure 1: Hydatid cysts.



Figure 2: 18x16cm hydatid cyst.

Based on the radiological findings, *Echinococcus* IgG levels were tested which were found to be 43.3% and hence positive for hydatid disease. She was then planned for a joint surgery by the Surgery and Gynaecological team. She underwent a midline laparotomy followed by splenectomy, partial cystectomy, excision of multiple peritoneal cysts, left para-ovarian cyst deroofing, left salpingo-oophorectomy and excision biopsy of the cyst wall. The intra-operative findings revealed a 18x16cm hydatid cyst arising from the lower pole of the spleen. Other cysts of varying sizes were found in segments VII and II of the liver and scattered all over the peritoneum (Figure 2). In the pelvis, a large 10x 8cm left sided para-ovarian cyst was present with the left tube stretched over it, which turned out to be a hydatid cyst which was densely adherent to the ureter and left ovary. Also, there was a 4x5 cm endometriotic cyst with chocolate material involving the left ovary. Right sided adnexa and uterus were normal. Hepatic cysts were aspirated and then injected with 10% povidone iodine solution as scolicidal agent before removing the cyst membrane and obliterating the cavity with omental grafts. Deroofing of the paraovarian hydatid cyst was done followed by removal of the membrane as

excision was not possible without injuring the densely adherent ureter (Figure 3-4).

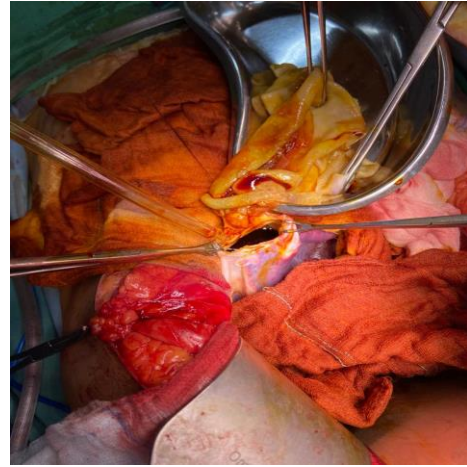


Figure 3: Deroofing of the paraovarian hydatid cyst.

Care was taken to avoid spillage of the cyst contents in the abdomen and pelvis in order to decrease the chance of anaphylaxis and recurrence. Histopathology report confirmed the diagnosis of hydatid cysts in the specimens excised from the liver, spleen, peritoneum and left paraovarian cyst. Left ovary showed features of endometriosis. Her post-operative period was uneventful and she was kept in ICU for 24hrs for observation and monitoring then shifted to ward. Pre-operative and post-operative albendazole was given to reduce the recurrence. She was discharged in a stable condition and her follow up appointments showed good recovery with no post-operative complications or recurrence of the disease.



Figure 4: Removal of the membrane.

DISCUSSION

Hydatid disease is a disease which generally occurs in people who are in contact with dogs or livestock. Ingestion of food, water or soil contaminated with the eggs of the tapeworm or direct contact with infected animals results in infection in humans. Symptoms depend on the organ which is affected. Since liver and lungs are the most commonly affected organs, the patient often presents with nausea, vomiting, jaundice, coughing, abdominal or chest

discomfort, abdominal swelling and unexplained weight loss. Pelvic echinococcus, which is a rare disease, accounting for 0.2-1% of the diagnosed cases, can cause non specific symptoms like menstrual irregularities, abdominal pain, swellings, infertility and urinary disturbances.^{2,3} Symptoms of ovarian echinococcus often resemble that of polycystic ovaries or malignancy.⁴ In this patient, irregular delayed periods were one of the main symptoms for which she had come to seek treatment. On evaluation and after surgery she was then found to have multiple hydatid cysts involving the liver, spleen, peritoneum and ovary along with ovarian endometriosis. The rest of her symptoms were due to the involvement of the liver, spleen and peritoneum. Treatment with albendazole forms the mainstay of treatment with or without surgery, to kill the protoscolices and hence reduce the risk of recurrence as well as to reduce the intracystic pressure and therefore facilitate surgery by reducing the risk of spillage.⁵ The duration of treatment varies from 1-3 months with administration of albendazole in a cyclical manner for 3 days followed by a 14 days gap before the next cycle and even longer duration of administration has been reported in some studies. Endometriosis along with hydatid disease is a rare combination and can cause some confusion in making the diagnosis. In this case, the existence of hydatid cysts in other organs made the diagnosis easier although the endometriotic cyst was only diagnosed intra-operatively.

CONCLUSION

Menstrual irregularities can occur due to a variety of causes. Endometriosis is a common cause of this problem and co-existing hydatid cyst further contributes to it. Radiological studies are essential in diagnosing such cases especially if only the ovary is involved which in itself is extremely rare. Most patients present with disseminated disease in the commonly affected organs. Adjuvant

therapy with albendazole and surgery forms the mainstay of the treatment. Pelvic hydatid disease is extremely rare which makes it all the more interesting and challenging for the clinician who initially rules out all the common causes before the diagnosis is revealed either by radiological imaging or during surgery. This diagnosis should be kept in mind especially in patients coming from rural areas with history of contact with dogs and livestock.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Hydatid disease. Available at: <https://www.who.int>. Accessed on 20 November 2022.
2. Mohammed AA, Arif SH. Hydatid Cyst of the Ovary- A very rare type of cystic ovarian lesion: A case report. *J Surg Case Rep.* 2021.
3. Cattorini L, Trastulli S, Milani D. Ovarian hydatid cyst: A case report. *Int J Surg Case Rep.* 2011;2(6): 100-2.
4. Sachar S, Goyal S, Sangwan S. Uncommon locations and presentations of hydatid cyst. *Ann Med Health Sci Res.* 2014;4(3):447-52.
5. Kaya A, Yildiz S, Ozaras R, Mert A. A primary giant hydatid cyst of the ovary. *Iran J Radiol.* 2017;9(3):165-6.

Cite this article as: Rahman F, Banerjee R, Ghosh N, Banerjee D, Singh D. An interesting case of disseminated hydatid disease with paraovarian hydatid cyst and endometriotic cyst occurring in the same ovary. *Int J Reprod Contracept Obstet Gynecol* 2023;12:1162-4.