

## Case Report

# Primary uterine hydatidosis - A rare occurrence

Garima Yadav<sup>1,\*</sup>, Shalini Rajaram<sup>2</sup>, Rashmi Mallik<sup>3</sup>, Sanjay Gupta<sup>4</sup>, Neerja Goel<sup>2</sup>

<sup>1</sup>Department of Obstetrics and Gynecology, University College of Medical Sciences and Guru Teg Bahadur Hospital, Delhi, India

<sup>2</sup>Department of Obstetrics and Gynecology, University College of Medical Sciences and Guru Teg Bahadur Hospital, Delhi, India

<sup>3</sup>Department of Gynecology, University College of Medical Sciences and Guru Teg Bahadur Hospital, Delhi, India

<sup>4</sup>Department of Surgery, University College of Medical Sciences and Guru Teg Bahadur Hospital, Delhi, India

## Abstract

Hydatidosis is a zoonotic infection which commonly affects the liver and the lungs. Secondary sites of infection are reported, although rarely. Primary infection of the uterus is a very rare entity and presents as a clinical dilemma. We hereby, report one such case of primary uterine hydatidosis which was provisionally diagnosed as an ovarian mass and during surgery mimicked a degenerated fibroid of the uterus. Histopathological examination revealed the true diagnosis of a parasitic infection of the uterus most likely hydatidosis. High index of suspicion is needed in females presenting with cystic uterine or adnexal masses especially in females residing in endemic areas for echinococcus.

## Key Words:

Echinococcus, uterine hydatidosis, benign adnexal masses, cystic uterine masses

## Introduction

Hydatidosis is a zoonotic infection caused by the larval stage of tapeworm of the genus *Echinococcus*. Humans are the accidental dead end hosts who get infected by the ingestion of parasitic eggs excreted in the faeces of the definitive host (a carnivore or a rodent). The primary site of infection is commonly the liver (75%) or lung (15%) while the infection of remaining of organs is usually secondary. Female genital tract is rarely involved wherein hydatid cyst may present as cystic lesions of the adnexa and uterus [1,2]. Primary hydatidosis of the uterus is a rare entity which presents as a clinical dilemma and may mimic a degenerated uterine fibroid, a broad ligament fibroid or an ovarian tumor. We hereby, report a rare case of hydatid cyst of the

uterus which was preoperatively diagnosed as a case of benign ovarian cyst but posed a surgical challenge as the intraoperative diagnosis of uterine hydatidosis was difficult.

## Case Presentation

A 45-year-old multiparous female was admitted with chief complaints of a mass lower abdomen associated with heaviness and increased frequency of micturition for one month. There was no associated history of acute abdomen, vomiting, loss of appetite, weight loss or any bowel complaints. There was no history of dysuria, nocturia or burning micturition. Patient had no chronic medical or surgical illness. One episode of heavy menstrual bleeding occurred eight months ago for which a hemostatic curettage was done and histopathology report showed a proliferative endometrium. Progestin therapy from menstrual cycle day 15 to day 25 was started and continued for 3 months, following which she resumed normal cycles (3-4 days/ 28 days/ average flow/ painless). She was vegetarian by diet and a washerwoman by profession. Her general physical examination was normal but abdom-

### Article History:

Received: 16/09/2015

Accepted: 02/12/2015

\*Correspondence: Dr. Garima Yadav

Address: Department of Obstetrics and Gynecology, University College of Medical Sciences and Guru Teg Bahadur Hospital, Delhi, INDIA

Email: garimapunein@gmail.com

Tel: 91-8800621483, 9873188649

inal examination revealed a mass of around 16 weeks of gravid uterus size, palpable in the suprapubic region with well defined margins, globular, cystic to firm in consistency, nontender with side to side mobility. There was no evidence of free fluid in the abdomen and no organomegaly was present. On speculum examination cervix and vagina were healthy and on per vaginal examination a normal size retroverted uterus was present which was deviated to right along with it a 10x 10 cm mass felt through the anterior fornix. Right and left fornices and pouch of Douglas was free. Rectal mucosa and rectovaginal septum were normal. Her haematocrit revealed raised eosinophil count while, other routine investigations including ovarian tumor markers and chest x-ray were normal. On transabdominal scan, liver, gall bladder, pancreas, both kidneys and bladder were normal. Uterus was normal in size with a well defined cystic space occupying lesion of 9.6x 9.1 cm close to uterus on right side. Another cyst of 4.9x 2.3 cm was present which appeared to be arising from the left adnexa.

Patient was taken up for exploratory laparotomy. Large cystic mass around 10x 10 cm arising from the anterolateral wall of the uterus was found, which was densely adherent to the bladder and small bowel (Figure 1). Another cystic mass around 5 cm was present in the pararectal region along with multiple sub-centric nodules all over the small bowel. Bilateral ovaries appeared normal as were rest of the abdominal organs. On cut section clear fluid was present inside the cyst with another cyst inside and no solid areas. On histopathological evaluation, cyst adherent to the uterus and pararectal cyst along with sub-centric nodules showed an inner laminated layer along with large areas of necrosis surrounded by fibrocollagenous wall with mixed inflammatory infiltrate suggestive of parasitic cyst. Patient was started on treatment of hydatid disease (albendazole 100 mg twice a day for 3 months) in the post operative period and is presently under our follow up.

## Discussion

Hydatidosis can affect any part of the body but liver and lung are the commonest sites affected. Whenever hydatid cyst affects other organs like brain, heart, pericardium, kidney, intraperitoneum, retroperitoneum, bone, soft tissue, and breast etc., the primary diagnosis is extremely difficult to make as it mimics other cystic pathologies affecting these organs. Hydatid cyst of the uterus is a rare entity in gynaecological practice and only a high degree of clinical suspicion especially in patients with a prior history and those coming from endemic areas, can direct a clinician towards the disease in the preoperative period. Singh et al. reported a similar case of uterine hydatidosis arising from the lateral wall of the uterus, which was preoperatively diagnosed as malignant ovarian mass, for which they performed a total abdominal hysterectomy and bilateral salpingo-oophorectomy [3]. Similar case of uterine hydatidosis was reported by Okumus et al. where they also performed total hysterectomy and the diagnosis was later confirmed by microscopic studies [4]. Basgul et al. reported a case of uterine hydatidosis in a female who had prior history of hydatid cysts of the liver, thus, was a secondary infection of the pelvis [5]. This case adds to the existing literature wherein hydatid cyst mimicked an ovarian neoplasm intraoperatively along with dense adhesions to surrounding structures. Multiple nodules reported in the present case mimicked metastasis of the surrounding area and hence, a definitive surgery in-

**Figure 1.**



*Hydatid cyst adhered to the anterolateral wall of the uterus with daughter cyst*

volving bilateral salpingo-oophorectomy was done. This radical approach could have been avoided if we could suspect and diagnose hydatidosis in the pre-operative period itself. A high index of suspicion is needed to avoid misdiagnosing the condition, especially in females residing in endemic areas of hydatidosis and presenting with cysts of the liver or lung. In present case, preoperative diagnosis was difficult due to absence of hydatidosis of the commonly affected organs therefore, a definitive surgery was done due to strong suspicion of malignancy. Hence, we recommend considering pelvic hydatidosis as the differential diagnosis of cystic adnexal or uterine masses especially with a 'floating or 'flapping' membrane seen on ultrasonography. These floating membranes represent the cyst wall of the daughter cysts

which can be easily appreciated on gross examination. Failure to do so may result in catastrophic intraoperative and postoperative events. Intraoperative rupture of the cyst can cause severe anaphylaxis reaction which needs to be avoided, however in this woman the no anaphylaxis was observed probably because the disease may have reached an end stage.

#### Acknowledgement

None

#### Declaration of Interest

None

## References

1. Bouree P. Hydatidosis: dynamics of transmission. *World J Surg* 2001;25:4-9.
2. Engin G, Acunas B, Rozanes I, Akunas G. Hydatid disease with unusual localization. *Eur Radiol* 2000;10:1904-12.
3. Singh AP, Sikarwar S, Shrivastava BR, Gupta S, Sultana K. Primary hydatidosis of female genital tract: a case report. *J Indian Med Assoc* 2009 Mar;107(3):169-70.
4. Okumus Y, Tayyar M, Patiroglu T, Aygen E. Uterine hydatid cyst. *Int J Gynaecol Obstet* 1994;Apr 45(1):51-3.
5. Basgul A, Kavak ZN, Gokaslan H, Kullu S. Hydatid cyst of the uterus. *Infect Dis Obstet Gynecol* 2002;10(2):67-70.