

# Primary Hydatid Cyst Mimicking Uterine Leiomyoma

## Uterin Leiomyomu Taklit Eden Primer Hidatik Kist

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### ABSTRACT

Here, we present a rare case of a hydatid cyst in a 25-year-old woman, mimicking a uterine leiomyoma. The patient was admitted with lower abdominal pain and tenesmus, and ultrasonographic examination revealed a 10×10 cm uniloculated mass with regular borders in the myometrium. The patient was operated with an initial diagnosis of a uterine leiomyoma with cystic degeneration, which was found to be hydatid cyst during frozen section and confirmed with the identification of protoscoleces during microscopy. This rare case report indicates the necessity of considering hydatid disease in the differential diagnosis of pelvic cysts, especially in endemic regions.

**Keywords:** Uterus, Echinococcus granulosus, hydatid cyst

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### ÖZ

Burada, 25 yaşında bir kadın hastada saptanan, uterus leiomyomunu taklit eden, nadir görülen bir kist hidatik olgusu sunulmaktadır. Hastaneye alt bölgelerde karın ağrısı ve tenesmus yakınmasıyla gelen hastanın ultrason ile yapılan incelemesinde myometrium sınırları dahilinde 10×10 cm'lik bir kitle tespit edilmiştir. Bunun üzerine kistik dejenerasyonla giden uterus leiomyomu ön tanısıyla operasyona alınan hastadan çıkartılan lezyonun yapılan "frozen" incelemesinde "Kist Hidatik" tanısı konulmuştur. Daha sonra bu tanı, mikroskopik incelemede protoskolekslerin görülmesiyle doğrulanmıştır. Bu oldukça nadir görülen olgu, özellikle kist hidatiğin endemik olduğu bölgelerde pelvik kitlelerin ayırıcı tanısında düşünülmesi gerektiğini işaret etmektedir.

**Anahtar Kelimeler:** Uterus, Echinococcus granulosus, hidatik kist

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### INTRODUCTION

Hydatid disease is a parasitic infection caused by the larval stages of *Echinococcus granulosus*, *E. multilocularis*, and *E. vogeli*. The disease remains a significant problem, especially in underdeveloped countries (1, 2). Definitive hosts mostly include dogs. The tapeworms grow into adults in the intestines of the host and are excreted with the feces. These eggs are ingested by sheep, pigs, cattle, and humans (the intermediate hosts). The eggs penetrate through the mucosa of the intestine, diffuse into the lymphatic and blood circulation, and are transported to other organs. The most frequent sites involved are the liver (75%) and lungs (15%), but it may be found in any part of the body, including the kidney, brain, heart, muscles, and bones (1, 2). The involve-

ment of the genital tract is rare, with less common occurrence in the uterus (1). It may be confused with malignancies and other lesions of the affected organs. Here, we present a rare case of a primary hydatid cyst of the uterus mimicking a uterine leiomyoma.

### CASE REPORT

A 25-year-old woman with lower abdominal pain and tenesmus was admitted to the Department of Obstetrics and Gynaecology at our hospital. On physical and gynecological examinations, no pathological findings were detected. Ultrasonography of the abdomen showed a 10×10 cm uniloculated mass with regular borders in the myometrium. Right and left adnexa, kidneys, liver, and

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spleen were all normal. All tumor markers, including carcinoembryonic antigen (CEA), CA 125, CA19-9, AFP, and B HCG were within normal ranges, as were the other biochemical and hematological parameters. According to these findings, a uterine leiomyoma with cystic degeneration was primarily considered, and the patient was operated in the Gynecology Surgery Department of our hospital. During the operation, a 10-cm long, unilocular white cyst containing an opalescent fluid was detected inside the myometrium. Total cystectomy, including the surrounding myometrial tissue, was performed. The specimen was sent to the pathology lab for diagnosis with frozen section, which revealed the diagnosis of a hydatid cyst. Therefore, the abdominal cavity was washed thoroughly with hypertonic saline. Cut section of the specimen revealed a unilocular white cyst with a diameter of 10 cm (Figure 1). Microscopic examination showed scolices of *Echinococcus granulosus* with an outer laminated hyaline membrane and an inner granular germinal layer, which confirmed the diagnosis of a hydatid cyst (Figure 2). The patient recovered after the surgery and used mebendazole for 6 months. Informed consent was taken from patient for this case report.



Figure 1. Gross appearance of the hydatid cyst

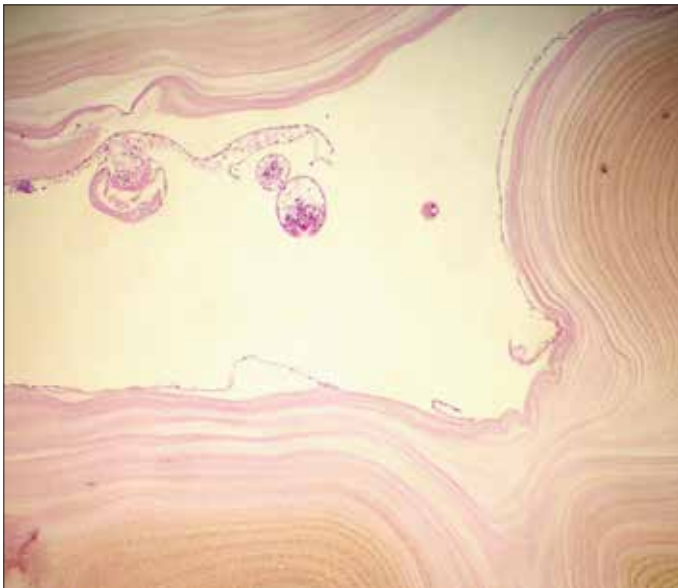


Figure 2. Histopathological findings: Laminated membrane and scolices (H&E x200)

## DISCUSSION

The common sites of hydatid cyst are the liver (75%) and lungs (15%). However, its unusual localizations, such as in the brain, heart, pericardium, kidney, intraperitoneum, retroperitoneum, bone, soft tissue, and breast, have already been demonstrated (3-6). Most of these locations are often part of a generalized disease.

Primary hydatid disease inside the pelvis is rather rare. Genital organs are reported to be the most affected areas in the pelvis; this can be attributed to their relatively rich bloodstream and true invasions from connective tissue of peritoneum of Douglas and suspensory ligaments (3, 7, 8). The involvement of the ovary and fallopian tubes, uterine cavity, parametrium, and Douglas pouch have rarely been reported (3, 4, 9).

The true diagnosis of a primary pelvic hydatid cyst is crucial due to its complications and the requirement of differential diagnosis. Possible complications of a pelvic hydatid disease may be urinary problems, rupture, or even obstructed labor. Generalized toxic reaction and secondary infections due to the rupture of the cyst are other common complications (3). Its differentiation from cancer and benign lesions is rather difficult and unexpected, when there is no history indicating the hydatid cyst. In the present case, the initial diagnosis was not hydatid disease but intra-uterine leiomyoma with cystic degeneration. Radiography, ultrasonography, and computed tomography are used for the diagnosis of hydatid cysts. Serological tests are also applied and immunoglobulin G antibody detection by ELISA is commonly used, with a sensitivity of 95% (3). Ultrasonography was also the diagnostic method in the presented case here. The serological tests were not applied because there was no history of a hydatid cyst.

## CONCLUSION

A very rare case of a primary hydatid cyst located in uterus was presented in this report. This case report indicates that the hydatid disease is still an important public health problem in certain underdeveloped countries. Our case report strongly suggests that the hydatid cyst should be considered in the differential diagnosis of cystic masses in the pelvis, particularly those in endemic regions.

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