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CASE REPORT / OLGU SUNUMU

Hydatid disease localized in mesorectum: Case report

Mezorektumda kist hidatik: Olgu sunumu

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ABSTRACT

Hydatid disease is a parasitic disease, which is caused by echinococcus and often located in the liver and lung but occasionally found in other organs. Only one previous study reported localization in the mesorectum. In this case report, we present a 27-year-old male, as a second case in the literature, with a hydatid cyst located in the mesorectum. Abdominopelvic computed tomography revealed cystic masses localized in the mesorectum with no pulmonary or hepatic involvement. Pre-operative cyst hydatid IgG (1/1000) was positive, and the preliminary diagnosis was hydatid disease. The patient underwent partial cystectomy. Macroscopic and microscopic examination of the specimens confirmed the hydatid cyst. This case report demonstrates that hydatid disease should be taken into consideration in the differential diagnosis of a cystic mass in any anatomic localization, especially in endemic areas. *J Clin Exp Invest 2015; 6 (1): 75-77*

Key words: Mesorectum, hydatid cyst, unusual localization, surgery

ÖZET

Kist Hidatik, etkeni Echinococcus granulosus olan ve daha çok karaciğer ve akciğerde yerleşmekle beraber nadiren diğer organlarda da bulunabilen paraziter bir hastalıktır. Mesorectum yerleşimli kist hidatik önceki çalışmalarda sadece bir vaka olarak rapor edilmiştir. Biz, bu olguda mesorectum yerleşimli, 27 yaşındaki kist hidatikli bir erkek hastayı literatürdeki ikinci vaka olarak sunduk. Abdominopelvik bilgisayarlı tomografide akciğer ve karaciğer tutulumu olmayan, mesorectuma lokalize kistik kitle saptandı. Ameliyat öncesi kist hidatik IgG (1/1000) pozitifti ve ön tanı olarak hidatik kist hastalığı düşünüldü. Hastaya parsiyel kistektomi yapıldı. Örneklerin makroskopik ve mikroskopik incelemesi sonucu hidatik kist tanısı doğrulandı. Bu olgu sunumu, özellikle endemik bölgelerde, herhangi bir anatomik lokalizasyondaki kistik bir kitlenin ayırıcı tanısında, kist hidatik hastalığının düşünülmesi gerektiğini göstermektedir.

Anahtar kelimeler: Mesorectum, hidatik kist, sıra dışı lokalizasyon, cerrahi

INTRODUCTION

Hydatid disease (HD) continues to be a serious public health problem in many countries. Although HD can be observed worldwide, it is endemic in Asia, Australia, the Middle East, Southern Europe, Africa, and South America [1]. Hydatid disease is most frequently localized in liver and lungs; however, it may be present in other organs, albeit rather rare [2]. Hydatid cysts in mesorectum are too rare and a review of literature revealed only one such case. In PubMed and Google Scholar search, using the keywords of "hydatid cyst and rectum" and "*Echinococcus granulosus* and rectum", we found only one case, which was published by Lockhart-Mummery et al. in 1935 [3].

We present a case of hydatid cyst in the mesorectum due to its exceptional rareness and clinical and radiologic confusion with other causes of pelvic and retrorectal masses. To the best of our knowledge, the case reported here is the second documented case of hydatid cysts in mesorectum.

CASE REPORT

A 27-year-old male patient presented to our clinic with the main complaint of pain in the lower quad-

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rant of the abdomen during the last two years. The physical examination including rectal examination was normal. Pre-operative cyst hydatid IgG was 1/1000. In fluorescent microscope, 1/100 and over reactions were accepted positive. Abdominopelvic computed tomography scan revealed a cyst (48*43 mm) with a mild thick cystic lesion located in the right mesorectum (Figure1 a, b) and other organs were normal. No abnormal finding detected in colonoscopy. The patient had no history of surgery for HD. Surgery was planned depending on the preliminary diagnosis of HD. During the surgical exploration under the midline incision, a cystic mass was identified in the right side in the mesorectum. Other organs of the abdomen appeared normal. We performed puncture in the mass because of HD suspicion. Rock water drainage was seen. A scolicidal agent was injected into the cyst. The surgical site was irrigated with 40% scolicidal agent (Betadine, Kansuk, Istanbul, Turkey) and hypertonic saline (3% NaCl). The site was aspirated after the waiting time. The germinative membrane was removed. Partial cystectomy was performed since the cyst was adherent to the rectal wall (Figure 2).

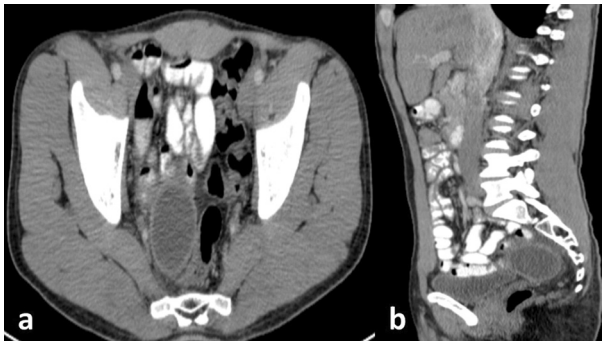

Figure 1. Contrast-enhanced axial CT section shows a well-defined cystic lesion in the right side of the mesorectum (a). Sagittal CT section shows a normal liver with a hydatid cyst in the mesorectum (b).

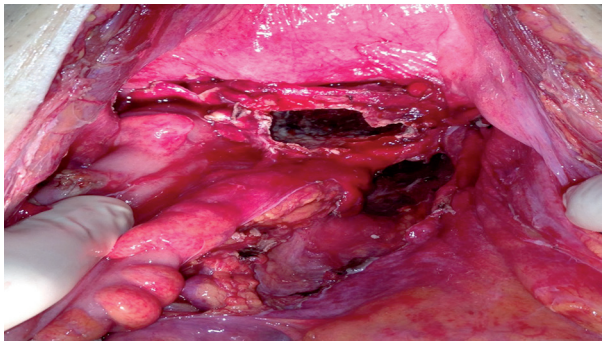

Figure 2. Intraoperative view of partial cystectomy for the mesorectal hydatid cyst.

The surgical site was flushed with isotonic fluid. A drain was placed in the surgical site and then the operation was terminated. Histopathological examination confirmed the hydatid cyst (Figure 3). No postoperative complication was observed. The patient was uneventfully discharged on postoperative day 7, and the patient was treated with Albendazol (10 mg/kg/day) for a period of 3 months postoperatively. No findings associated with local or systemic HD were detected during the follow-up period.

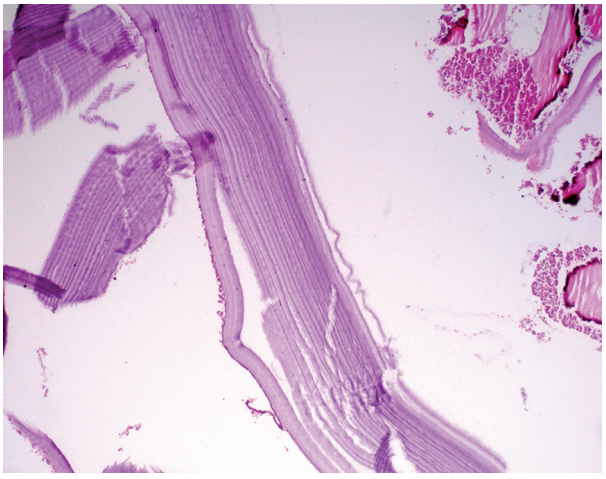

Figure 3. The cuticular membrane structure belonging to the cyst (H & E, 200X) (H&E,200X)

DISCUSSION

Hydatid cysts can develop in any organ such as kidneys, spleen, bile ducts, mesentery, brain, and soft tissue [4]. Larvae emerge from the eggs in the intestine; after invasion to the blood vessels, most of the embryos are trapped in the liver. The usual destination is the liver via the portal tract, but sometimes the larvae pass through the liver barrier and reach the lungs and all the other internal organs, where they transform into small cysts [5]. It is highly likely that systemic dissemination via the lymphatic route may be responsible for cases with solitary cysts in unusual sites [6]. The larvae can also pass through the venous mesenteric lymph vessels by diffusion and settle in tissues and/or various intra-abdominal organs by transmural migration through the intestinal wall [7]. If a microrupture is present, direct spread from the adjacent sites may be another mechanism of infection [6]. In our case, we consider that the transmural migration through the intestinal wall was more acceptable because neither hepatic and pulmonary nor adjacent organ HD was detected.

Despite the characteristic imaging findings, differential diagnosis of HD from the cysts located in unusual anatomic locations has some difficulty, even in the patients presenting with the cysts located in endemic regions [9]. Retrorectal masses are a heterogeneous group of both benign and malignant tumors and the majority of them are congenital and cystic [10]. Thus, differential diagnosis is difficult for the retrorectal masses. If hydatid disease is suspected in the evaluation of immunological tests and radiological scans, unnecessary surgical procedures can be avoided.

Indirect Fluorescent Antibody (IFA) is an important test for the diagnosis of HD [8]. In our patient, the high IgG level (1/1000) measured by the commercial kits "anti-Echinococcus granulosus IIFT" supported the differential diagnosis of the radiologically suspected HD. Then, the patient was operated on due to the preliminary diagnosis of retrorectal HD.

Currently, surgery is the most effective method in the treatment of hydatid cysts located in soft tissue. The main purpose of surgery is to prevent complications such as compression of surrounding structures, infection, or cyst rupture. Soft tissue cysts can be easily ruptured. Therefore, rupture of the cyst must be avoided to prevent recurrence [1]. In our patient, the risk of unnecessary rupture and recurrence was prevented via HD suspicion. There are many alternative operations for HD including total cyst excision and partial cystectomy [5,11]. Surgical intervention should be planned according to the location of the cyst. In our patient, partial cystectomy was preferred in order to avoid damage to the rectal wall. Albendazol [10 mg/kg) treatment for a three-month period has better results for preventing postoperative recurrence of the HD [11]. We prescribed our patient a dosage of 10 mg/kg per day for 3 months.

The case reported here is the second case of hydatid cysts in mesorectum. Therefore, the patient presented is the second documented case of HD located in the mesorectum, in the world. In the differential diagnosis of the retrorectal and pelvic masses in endemic regions, unusual localization of HD should be considered. IFA contributes to the diagnosis of the cysts which cannot be clearly diagnosed by radiology. Total excision should not be forced in the treatment of HD because it has a high risk of complication.

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