CASE REPORT

NON-FUNCTIONING KIDNEY RESULTED FROM PRIMARY HYDATID CYST OF THE PSOAS MUSCLE

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ABSTRACT
Hydatid cyst is rarely located in the psoas muscle. Herein, we report a case with non-functioning kidney resulted from a primary hydatid cyst located at the psoas muscle obstructing upper segment of the ureter.
Keywords: Psoas muscle; Kidney; Hydatid cyst; Treatment

PRİMER PSOAS KİST HİDATİĞİ SONUCU OLUŞAN NONFONKSİYONE BÖBREK

ÖZET
Psoas kasında nadiren kist hidatik görülür. Bu vakada primer psoas kası kist hidatiği sonucu oluşmuş nonfonksiyone böbrek vakası bildirilmiştir.
Anahtar Kelimeler: Psoas kası, Böbrek, Hidatik kist, Tedavi

INTRODUCTION

Hydatid cyst is a parasitic infection prevalent in most sheep raising in the Mediterranean countries. Primary cyst may localize anywhere in the body but commonly they are found in the liver (55-70%) and lungs (20-30%), location in the muscular tissue accounts for 2-3 % of all cases[1]. Herein, we report a case with non-functioning kidney resulted from a primary hydatid cyst located at the psoas muscle obstructing upper segment of the ureter.

CASE REPORT

A 42-year-old woman presented with right loin pain for 2 years. She did not complain of any voiding symptoms and history was unremarkable. Physical examination was normal. Ultrasonography revealed a well defined right retroperitoneal cystic lesion adjacent to the right hydronephrotic kidney. Intravenous urogram showed a non-functioning right kidney and normal left kidney (Fig. 1). Computerized tomography revealed a cystic formation having vesicles with well defined wall suggestive of hydatid disease in the right retroperitoneum (Fig. 2). Also right ureter was compressed by cystic lesion. Imaging studies detected no other cyst anywhere in the body. Serological studies were normal.

Fig. 1: Intravenous urogram shows a non-functioning right kidney.

Medical therapy with oral albendazole (10mg/kg/day) was administered 7 days before surgery. Right flank incision was made and a cystic lesion obstructing right ureter was observed. After the operative field was protected with swabs soaked with 3% cetrimide, the area around the cyst was incised and the cyst content,

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composed of numerous daughter cysts and a water-like fluid with debris, was evacuated. Drainage was followed by partial cystectomy and simple right nephrectomy of the non-functioning kidney. A prophylactic large-caliber passive tube drain was placed in the cyst cavity and removed at the sixth postoperative day. Postoperative stay was uneventful and the patient was discharged 8 days after surgery with continuous albendazole therapy for 6 months. No recurrence of hydatid disease was observed by the same examinations done after 1 year follow up period.

Fig. 2: CT shows a cystic formation having vesicles with well defined wall suggestive of hydatid cyst adjacent to the right hydronephrotic kidney.

DISCUSSION

Hydatid cyst may occur in any part of the body. When the hydatid cyst located in the muscle tissue, the diagnosis of hydatid cyst may be difficult and late, because this localization is unexpected and the cyst is asymptomatic until it enlarges and compresses adjacent organs. Although skin and serological tests (i.e. specific antibodies titres) are widely used to confirm diagnosis, they are often negative because the capsule isolates the parasite from the host's immune system. Hydatid cyst is rarely located in the psoas muscle. If it does not compress the kidney, ureter or vertebra, it is generally asymptomatic and may be diagnosed incidentally. Radiologic investigations (particularly ultrasonography and CT) are used to establish the diagnosis when daughter cysts are identified and are very helpful in determining the extent of the disease. Recently, magnetic resonance imaging (MRI) has been gaining popularity for investigating hydatid disease involving soft tissues[2]. Cystic or complex retroperitoneal tumor, pyogenic abscess of the psoas and even tuberculosis must be considered in the differential diagnosis of retroperitoneal hydatid cyst[3]. Although the diagnosis of hydatid disease is mainly clinical and radiologic, clinic suspicion is the most important factor for its diagnosis.

After preoperative diagnosis of hydatid cyst is confirmed, adequate surgical excision of cyst, and sterilization of the cavity with scolocidal agents (such as hypertonic saline, cetrimide, hydrogen peroxide) for preventing the seeding should be done. Percutaneous drainage and alcoholization could be used to reduce the size of the cyst and sterilizing, but Melis et. al. reported a case with no significant changes within the size of the cyst after this procedure[1]. Medical therapy with mebendazole or albendazole is used as prophylaxis and postoperatively to prevent recurrences. Preoperative medical therapy should be initiated at least 4 days before the operative procedure and continued for at least a month or preferably several months postoperatively[4,5]. Extraperitoneal approach is preferred in order to avoid intraperitoneal dissemination and partial cystectomy, simple nephrectomy, and combined with medical therapy was the treatment choice in our case. Total cystectomy is not required in the muscular hydatid disease, because disease is diffuse in the muscle[3]. Angulo et al. recommended irrigation of the cavity with scolocidal agents via drain tube for several weeks following surgery and some authors did not advise postoperative irrigation[1,3].

In summary, the case presented here is notable for two reasons; one is the rarity of it and the other is that of its compression leading to a non-functional kidney.

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