A benign rare intraabdominal lesion: Primary giant mesenteric hydatid cyst

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Abstract

Hydatid disease, mostly caused by Echinococcus granulosus, is a common parasitic infestation of the liver. In this type of infectious disease, humans are an intermediate host. Although most common sites are liver (70%) and lungs (25%), this parasitic tapeworm can be seen at any region of the body. Intrapertitoneal cysts are usually secondary to the rupture of primary cysts, but primary hydatid cysts of the mesentery are very rare (%2). Herein, we aimed to report a giant primary hydatid cyst in a male patient, treated surgically without any complications.

Keywords: Hydatid Disease, Primary Mesenteric Cyst, Giant Hydatid Cyst.

Introduction

Hydatid disease which is also named as hydatidosis, is a parasitic infection caused by tapeworms of the Echinococcus cestode [1,2]. Echinococcus granulosus is the most common form encountered in humans. The disease still has a wide distribution worldwide and endemic in some countries including South Africa, Australia, South America and Eastern Europe involving Turkey [2]. In this disease, humans are known as an intermediate host during the life cycle of the parasite. It is located primarily in the liver (70%) and lungs (25%) and starts to produce daughter cysts [1]. Secondary cysts can be seen at any anatomical site including every solid organ, vertebra, mesentery and soft tissues [3]. Intrapertitoneal hydatid cysts are commonly secondary to the rupture of a primary liver cyst and primary mesenteric hydatid cyst is very rarely encountered [1-3]. In this case report, we aimed to report a giant primary mesenteric cyst in a male patient who was treated surgically and diagnosed as hydatid disease following histopathological evaluation.

Case presentation

A 62-year-old male patient admitted to hospital with abdominal distention and intermittent abdominal pain lasting for 5 years. On the physical examination, his abdomen was diffusely tense without defense or rebound findings. He had no any other comorbidities or history of surgical procedure. Laboratory findings including liver function tests and tumor markers. Ultrasound examination revealed cholelithiasis and 18 X 16 cm cystic lesion located between supraumbilical region to pelvis and sonographic evaluation
was consistent with mesenteric cyst with the advice of contrasted computerized tomography for further evaluation. Contrast to
mography was performed and showed 19 X 15 cm cystic lesion which was thought to be originated from 3rd segment of duode
num and reported with differential diagnosis as duplication cyst or mesenteric cyst. Additionally, there was a 13 X 11 mm lesion
on the 4th segment of the liver consistent with hemangioma. Nei
ther laboratory test, nor antiparasitic therapy specific to hydatid
disease were started because of those radiological findings which
were not suspicious for the disease. Following preoperative as
sessment, midline laparatomy was performed under general an
esthesia. Initial exploration revealed a giant cystic lesion originat
ing from the mesentery of proximal small intestine and extending
from the level of Treitz ligament to the pelvic inlet (Figure 1). The
liver, spleen, pancreas, and both kidneys appeared to be normal
and there were not any free fluid. Cyst was removed totally with
out any dehiscence or spillage (Figure 2). Histopathological ex
amination revealed a 23 X 16 X 17 cm cystic material with 3150 g
weight. Cystic wall was found to be 2 mm in thickness, consistent
with acellular cuticle membrane without any solid or papillary le
sions. Cystic fluid involved numerous scolex formations. The pa
tient was discharged on the day without any complications with
albendazole 800 mg/day treatment. The duration of the treatment
was planned to be 3 months and he was called to outpatient clinic
for the control of liver function tests once a month.

Discussion

Hydatid disease or Echinococcosis is a parasitic disease caused
by the cestode of Echinococcus granulosus in which humans are
an intermediate host [4]. It is still considered to be endemic in
some parts of the world including Middle East, South America
and Mediterranean regions involving Turkey [5]. Mainly four dif
ferent species can cause active infection in humans, which are
Echinococcus granulosus (cystic hydatid disease), Echinococcus multilocularis, Echinococcus vogeli and Echinococcus oligarthrus,
considering the last two as very rare [6]. Humans are intermediate
hosts during the life cycle of the cestode and infected following
a contact with a definitive host such as dog or sheep, or by the
ingestion of infected vegetables or water [7]. Although any ana
tomical region may be infected in the body, the most frequent site
is the liver (upto 75%), followed by lungs (25-27%) [8,9]. Perito
neal and mesenteric hydatid cysts are more commonly secondary
due to a primary liver cyst. They are usually caused by the rupture
of this primary cyst [10]. Either primary or secondary, these cysts
are considered as a significant manifestation of the disease (13%)
[3]. Primary mesenteric cysts of Echinococcus granulosus account
for 2% of all abdominal hydatidosis [11]. As it is seen in primary
liver cysts, symptoms and complications are related with the loca
tion and size of the cyst. Mesenteric hydatid cysts may be com
pletely asymptomatic with regard to their small size, or they can
be diagnosed as a non-specific abdominal mass, causing pain due
to larger size and pressure effect on the mesentery [1]. Imaging
and serology are the main diagnostic tools. Ultrasound is usually
effective in diagnosing hydatid cysts in the abdomen. Contrast
computerized tomography (CT) may be considered as the second
line radiological tool when needed, showing the size, location and
morphology of the cyst in detail.

In our case, the patient was a 62-year old male, with com
plaints of abdominal distention and intermittent abdominal pain.
He did not have any comorbidities or history of surgery. History
revealed a long-term animal contact with sheeps during childhood.
In our case, ultrasound and CT examinations were consistent with
a giant primary mesenteric cyst, which led the physicians to have
a lacking record of history and laboratory study such as indirect
hemagglutination test for hydatid disease. Following a successful
surgery without the rupture of the cyst, the exact diagnosis was
reported as mesenteric hydatid cyst with histopathological exami
nation. The cyst was considered as primary mesenteric hydatid
cyst because the CT examination did not show any other abnor
mal findings in other anatomical parts in neither abdomen, nor
thorax. The patient was discharged from the hospital without any
complications and kept on medical therapy with albendazole 800
mg per day and called to outpatient clinic once a month.
Conclusion

In endemic countries, hydatid cystic disease should always be kept in mind for the differential diagnosis in a patient with a cystic mass lesion at any anatomical region whatever the age of the patient, even if initial radiological studies do not reveal any suspicion as we had in our patient. Surgery is still accepted as the gold standard treatment in symptomatic cases.

References