

# Seven Years Old Girl with Primary Peritoneal Hidatid Cyst

## Yedi Yaşındaki Kız Çocukta Primer Peritoneal Kist Hidatik

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### ABSTRACT

Hydatid disease is a parasitic infection caused by *Echinococcus* at endemic areas. It often locates in liver and lung. Primary peritoneal placement is quite rare. It was detected as a result of the exploration of 7-years-old girl with acute abdominal pain, nausea and fever. Pelvic and peritoneal hydatid disease is quite rare. It often occurs as a result of primary liver cyst perforation through transmission. Especially in endemic areas where the animal husbandry is common, should be considered in the differential diagnosis of patients with intra-abdominal mass and during the operation to prevent transmission and anaphylaxis, must be prepared before the operation.

**Key words:** appendicitis; *Echinococcus*; hidatid cyst; pelvic; peritoneal

### ÖZET

Kist hidatik endemik bölgelerde *Echinococcus* tarafından oluşan parazitik bir enfeksiyondür. Sıklıkla karaciğer ve akciğerde yerleşir. Primer peritoneal yerleşimi oldukça enderdir. Acil servise karın ağrısı, bulantı ve ateş şikayetleri ile gelen yedi yaşındaki kız çocukta acil şartlarında yapılan eksplorasyon sonucunda appendektomi sırasında saptanıp çıkarılan kitlenin patolojik incelenmesinde, appendisit ile birlikte kist hidatik saptanmıştır. Pelvik ve peritoneal hidatik kist oldukça nadirdir. Sıklıkla primer karaciğerdeki kistin perforasyonu sonucu oluşan bulaş yoluyla oluşur. Sonuç olarak özellikle hayvancılığın yaygın olduğu endemik bölgelerde batin içi kitle nedeni ile başvuran hastalarda ayırıcı tanıda düşünülmelidir ve operasyon sırasında, perforasyon sonucu oluşabilecek anafilaksi ve bulaşı önlemek için hazırlıklı bir şekilde operasyona girilmelidir.

**Anahtar kelimeler:** apandisit; *Echinococcus*; kist hidatik; pelvik periton

### Introduction and Objectives

Hydatid cyst disease is a zoonotic infection that is endemic in Turkey. It often occurs by the *Echinococcus granulosus* and *Echinococcus multilocularis*. The parasite can reach any organ in the body where it can form the hidatid cyst<sup>1</sup>. The most commonly affected organs in humans are the livers (55–70%) and lungs (18–35%). Pelvic *Echinococcosis* is quite rare (0.2–2.25%)<sup>2,3</sup>.

Although there is no specific radiological imaging findings, calcification on the cyst wall or membrane separation can be found. Serological tests are helpful for the diagnosis but reliability is not 100%<sup>4</sup>.

Primary peritoneal placement is quite rare. It was reported that only the 2% of the intraabdominal hidatid cysts are primary peritoneal hidatid-cysts<sup>5</sup>. It is presented that the pelvic hidatid cyst with 7-years-old girl who came to the emergency service with acute abdominal pain.

### Case

Seven years old girl came to the emergency service with acute abdominal pain, nausea and fever. During the physical examination, the pain was located at the suprapubic and right lower quadrants. Rebound tenderness was positive. Also there was a mass located suprapubic and its diameter was approximately 10 cm.

As a result of the laboratory tests, white blood cells were 17,000. There was not any pathology at the urinalysis. At the abdominal ultrasonography, 12×10 cm cystic lesion was founded. Appendix was inflamed and had a 7 mm diameter.

With these findings, patient was operated under emergency conditions.

The operation was begun with the median incision. At the exploration, approximately 10×10 cm mass found

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Figure 1. Intraoperative image of the mass.

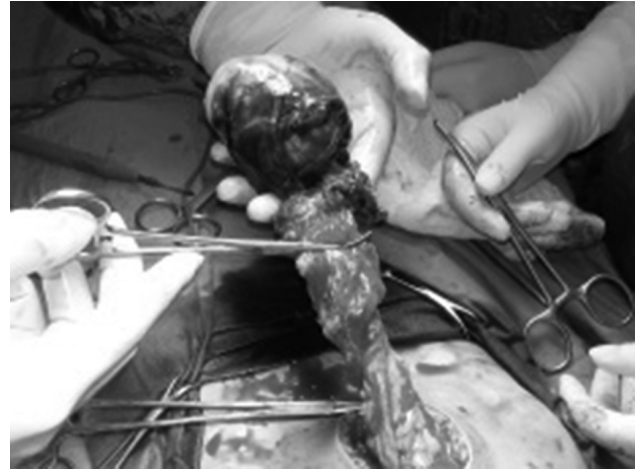


Figure 2. Intraoperative image of the mass.

that was adherent to the superior of urinary bladder and omentum, The mass had a thick wall. The appendix was retrocecal located and inflamed. There was not any pathological findings at the liver and spleen.

The mass was excised as unblock with the partial omentectomy (Fig. 1 and 2). Appendectomy was performed. The abdomen was closed after the hemostasis.

Intravenous hydration and antibiotherapy was provided in the postoperative period. Postoperative 2th day, hydration and antibiotics were stopped.

As a result of the pathological examination, appendicitis were defined and the mass was defined as a hidatid cyst.

## Discussion and Conclusion

Hydatid disease is a parasitic infection caused by *ecinococcus* at endemic areas. Infection is endemic especially in the areas where the animal husbandry is common. It often locates at the liver and lung. Pelvic and peritoneal disease is quite rare. It often occurs as a result of primary liver cyst perforation through transmission<sup>6</sup>.

Cyst grows slowly and according to the placement, it is usually asymptomatic until it reaches a large size. In our case, patient came to the emergency service with the abdominal findings of the acute appendicitis and the mass was found randomly.

Pelvic and peritoneal placement of the hidatid cyst is usually caused by the seconder infection of the primer cyst. But in our case we could not find the primer disease so we thought primer peritoneal placement. *E.granulosus* embryos passes into the portohepatic

circulation and reach to the retroperitoneal lenf nodes or emryos settle directly into the gastrointestinal tract lenf nodes and disease occurs<sup>7</sup>.

As a result pelvic and primer peritoneal hidatid disease is rare. But especially in endemic areas where the animal husbandry is common, should be considered in the differential diagnosis of patients with intra abdominal mass and during the operation to prevent transmission and anaphylaxis, must be prepared before the operation.

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