

A Rare Case of Multiple Peritoneal Hydatid Cyst

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Abstract: *Hydatidosis, a rare zoonotic infection caused by Echinococcus granulosus, primarily affects the liver but can also involve other organs. This case report discusses a 30-year-old female patient with multiple peritoneal hydatid cysts, presenting with abdominal fullness and pain. The diagnosis was confirmed through imaging studies, and surgical intervention was performed to excise the cysts. This report emphasizes the importance of early detection and surgical treatment in preventing complications associated with hydatid cysts.*

Keywords: Hydatid cyst, Echinococcus granulosus, Peritoneal hydatidosis, Surgical treatment, Case study

1. Introduction

Hydatid cyst is a parasitic infection of liver. One of the most frequent reasons of the liver mass is hydatid cyst in tropical and rural countries. ⁽¹⁾

Infection with Echinococcus granulosus larvae causes this disease. The most affected organ is liver (75%) and lung (15%). Other rare seen anatomical locations are brain, breast, heart, spleen, bone, abdominal wall. ⁽²⁾ Clinical symptoms vary according to the size, anatomical location and stage of the hydatid cyst. the course of the disease can be silent in most patients until a complication occurs or raise the size of cyst a huge amount. In some cases, rapidly grow up of cyst mimic liver masses. the most used diagnostic method for differential diagnosis is abdominal ultrasound (USG). ⁽³⁾

Abdominal computed tomography (CT) or magnetic resonance imaging (MRI) are used for advanced diagnosis. lots of techniques can be used for treatment such as medical treatment, percutaneous aspiration and surgical removal of cyst. ⁽³⁾

2. Case Report

A 30 years old female patient came with complain of Abdominal fullness which was gradual in onset localized more to right side and associated with right side groin pain in the past 2 years which was not relieved by medical treatment with tab albendazole. On examination there was RHC tenderness with palpating lump of Approx 4*4 cm² sized over RIF region. As all blood investigation is within the normal limit. CXR and AXR show normal finding. USG: approx.9.5*4.1 cm² well - defined heterogeneously hypoechoic lesion with multiple internal calcifications and without internal vascularity noted and right adnexal region. Another similar approx.7.2*3.0 cm² sized lesion noted involving sub hepatic and RT lumbar region. CECT: approx.6*4.5*5.9 cm³ sized well defined round to oval heterogeneously hypodense non enhancing lesion seen in sub hepatic region. Another similar lesion was seen in the right adnexa, abutting right lateral and superior wall of bladder, and in right paraumbilical mesenteric region, extending into right iliac fossa.

INTRAOP Finding: 3 hydatid cysts identified at periumbilical region, at inferior surface of left liver lobe near segment 3 and rt adnexa near uterus. Right periumbilical cyst was separated from its attachments to the omentum and small bowel using cautery and was dissected out. another at inferior surface of liver marsupialized using 10% betadine to act as scolicidal agent. another cyst at right adnexa also separated from surrounding attachment with uterus and fallopian tube.

Histopathology: H & E stain shows 2 layer of hydatid cyst that is acellular laminated layer and nucleated germinal epithelium features are suggestive of hydatid cyst.

3. Discussion

Echinococcosis, a well - known anthroponosis, affects human beings. Dog is the definitive host; human is the accidental intermediate host.

Embryonic eggs reach the liver through the digestive system. Sometimes eggs go too far from the hepatic veins. Small hydatid cysts do not cause any symptoms. When it reaches the bigger size, patient became symptomatic. Most common symptom is abdominal pain. Fever can occur if the cyst is infected. major complication of hydatid cyst is rupture. cyst can be ruptured into peritoneal cavity, thoracic cavity or biliary duct, adjacent organ invasion, cholangitis, obstructive jaundice, anaphylactic shock can be listed as other complications. USG, CT and MRI used in the diagnosis of hydatid cyst. ⁽³⁾ In this case, cyst was classified as type iv Hussein and gharbi classification. MRI has a definitive importance in diagnosis and anatomical Relations of hydatid cysts. Ideal treatment method must include complete elimination of parasite from organism and prevent recurrence of disease. Treatment method must be chosen considering stage of cyst, localization, size and existence of complications. Non - operative techniques like percutaneous drainage and drug therapy are chosen for small sized cysts and for patients who do not want to undergo surgery. Surgical techniques include cystectomy, pericystectomy, hepatectomy, omentoplasty and capitonnage. Surgical treatment has the potential of removing cyst completely and low recurrence rate. in multiple cysts surgical management is sometimes difficult. It is better to drain all the cysts at the same time. In unreachable cysts and

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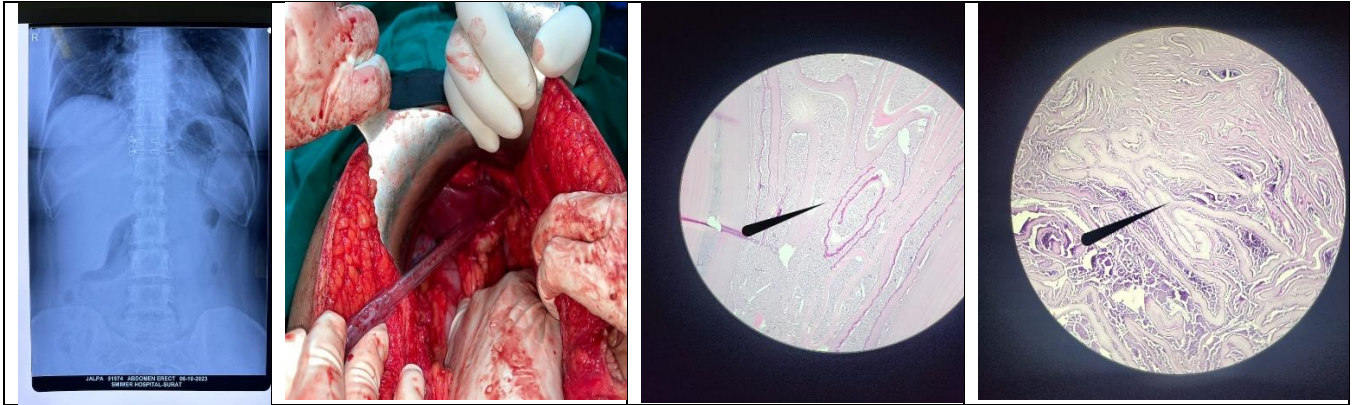
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poor conditioned patients two stage treatment can be chose. Giant hydatid cysts can cause complications such as rupture and anaphylactic shock. ⁽⁴⁾ Surgical interventions can prevent complications and spread of echinococcus also give chance of curative treatment.

4. Conclusion

Surgery remains the primary treatment for peritoneal hydatidosis, with an emphasis on the complete excision of cysts to prevent recurrence. This case underscores the importance of timely surgical intervention, supported by medical therapy, to manage this rare condition effectively. Long Term postoperative surveillance is crucial to monitor for potential recurrences.



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