

Role of Computed Tomography of hepatic Hydatid Cysts (HHC)

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Abstract: *Hydatid disease (echinococcosis) is a zoonotic infection of humans caused by Echinococcus granulosus. The disease poses an important public health problem in many areas of the world, particularly among populations that practice sheep husbandry. The prevalence of the disease is reported to be high in Middle Eastern countries, including Saudi Arabia, due to the presence of sheep and dogs living in close contact with humans. Studies of the disease in the Kingdom have shown multi-organ involvement, including the heart. A relatively high frequency of pulmonary hydatid disease has been reported, presumably because of airborne spread, with the lungs acting as the first filter instead of the liver. Most published studies on hydatid disease address clinical and/or management experiences, most which are comparable in many instances. However, this study describes the Radiologically, epidemiology of hydatid disease among diagnosed patients admitted to a major hospital in Alqassem Saudi Arabia.*

Keywords: Hepatic hydatid cyst, CT Scan of HHC

1. Introduction

Two thousand years ago, Hippocrates described hydatid disease of the liver as “the liver full of water.” Tyson in 1687 suggested the parasitic nature of the disease. The details of its clinical aspect, however, only became clear at the beginning of this century.

Hydatid disease is common in the sheep-rearing areas of the world, mainly Australia, Turkey, Wales, and South America. The prevalence of hydatid disease among humans was determined as 9.1% in a World Health Organization study in the Central Peruvian Andes. The disease is not uncommon in Saudi Arabia, especially in the South Western region of the Peninsula. In humans, most hydatid cysts occur in the liver and 75% of these are single cysts. Other commonly involved organs are the lungs, spleen, and kidneys.

Although percutaneous drainage with or without instillation of scolecidal agents has been increasingly used for the management of hepatic hydatid cysts in recent years, surgical intervention is still the treatment of choice. The aim of surgical treatment is elimination of scolices, previously killed by scolecidal drugs, together with removal of all viable parts of the cyst and obliteration of the residual cavity. This can be achieved by hepatic resection or by drainage and obliteration of the cyst. The latter procedure can be done by open surgery or laparoscopy

2. Patients and Methods

The present study included 20 patients with 15 hepatic hydatid cysts (HHC), Saudi Arabia, 2015. Ten patients (12 females and 8 males) had an average age of (16 to 63). On admission, the diagnosis of HHC was established by taking a relevant

history and a thorough physical examination then by CT Scan . The 8 males were from areas endemic for hydatid disease. All 20 patients had a positive history of contact with animals including sheep, camels, and dogs. The diagnosis was confirmed by other relevant supportive blood investigations and CT Scan. Each patient had routine blood tests, which included a complete blood count (CBC), liver function tests, kidney function tests, and an indirect hemagglutination test. Abdominal ultrasound scans showed a solitary anechoic lesion in 18 patients and bilateral anechoic lesions in 2 patients. A spiral CT scan was used as necessary to confirm ultrasonographic findings and to define the exact anatomical site and number of intrahepatic cysts. Figure 1 shows a preoperative ultrasound and computed tomography (CT) scans of the liver demonstrating HHC. All patients received preoperative and postoperative antiscolicidal medications in the form of Albendazole or Mebendazole according to drug availability. All patients were followed up clinically, biochemically, and radiologically.

3. Discussion

A CT Scan of hepatic hydatid cysts is feasible and safe. It combines the techniques of the advantages of Accurate diagnosis. Our patients benefited from immediate Techniques In this report, a Ultrasound and CT device for the Diagnosis of hepatic hydatid disease is described and the results of the 20 patients are presented. The CT Scan has been used to retrieve the Images after laparoscopic splenectomy; however, we believe this is the first time that it has been used for the Diagnosis of HHC.

4. Results

Ultrasound and CT scans confirmed the diagnosis of HHC in all patients. more cysts (80%) were located in the right hepatic lobe, and (10%) were found in the left hepatic lobe. (10%) had bilateral cysts. Cysts ranged in size from 5 to 10 cm. Laparoscopic findings were consistent with the ultrasound and CT scan diagnosis in all 20 patients (100%).

5. Conclusion

We conclude that the CT Scan of hepatic hydatid cysts is feasible and safe. It combines the techniques of the advantages of Accurate diagnosis of HHC.

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