



A case report of a patient with hydatid cyst in the liver and bile ducts

Rasool Samimi¹

1 Medical Microbiology Research Center, Qazvin University of Medical Sciences, Qazvin, Iran

Case Report

Abstract

BACKGROUND: Humans are one of the hosts of this *Echinococcus granulosus* (*E. granulosus*), contamination is caused by eating the eggs of this parasite. This study investigates a patient with a hydatid cyst in the liver and bile ducts referred to the Velayat hospital, Qazvin University of Medical Sciences, Iran, in 2021.

CASE REPORT: The patient was a 74-year-old woman complained of abdominal pain and jaundice. Computerized tomography (CT) scans and endosonography were performed. By endoscopic retrograde cholangiopancreatography (ERCP), hydatid membranes were removed.

CONCLUSION: Endemic areas are the point of view of hydatid cyst. In patients with lower abdominal pain, hydatid cyst should be considered.

KEYWORDS: Hydatid cyst, Liver, Bile

Date of submission: 05 May, 2021, **Date of acceptance:** 28 Mar, 2022

Citation: Samimi R. A case report of a patient with hydatid cyst in the liver and bile ducts. *Chron Dis J* 2022; 10(3): 171-3.

Introduction

Hydatid cyst is one of the most important diseases of zoonosis, caused by *Echinococcus granulosus* (*E. granulosus*). Humans are the accidental hosts of this parasite, and are infected by eating the eggs of this parasite.¹

The parasite is transmitted to humans through the mouth-feces, food or milk contaminated with dog feces, or direct contact with dogs. Hydatid cysts occur mostly in the liver (50%-70%) and then in the lungs (20%-30%), but sometimes rarely in any of the organs such as brain, heart, bone, abdomen, and pelvis.¹⁻³

Obstructive jaundice (icterus) is a type of jaundice that is caused by obstruction in the flow of bile from the liver to the duodenum and has several causes, including liver carcinoma, pancreatic head carcinoma, and

gallstones.⁴ The aim of this study was to diagnose and present the history of a patient with hydatid cyst in the liver and bile ducts referred to the Velayat Hospital associated with Qazvin University of Medical Sciences, Qazvin, Iran, in 2021.

Case Report

The patient was a 74-year-old woman who complained of abdominal pain and jaundice from two weeks ago and reported multiple cysts in the liver and normal bile ducts by computerized tomography (CT) scan. According to jaundice, endosonography was performed and a large filling defect was seen in the common hepatic duct (CHD) without posterior shadow (Figure 1).

The patient underwent endoscopic retrograde cholangiopancreatography (ERCP) and large amounts of hydatid membranes were removed. The patient's jaundice recovered and was subsequently evacuated and drained by the surgeon.

Corresponding Author:

Rasool Samimi; Medical Microbiology Research Center, Qazvin University of Medical Sciences, Qazvin, Iran
Email: microbiol_sci@yahoo.com

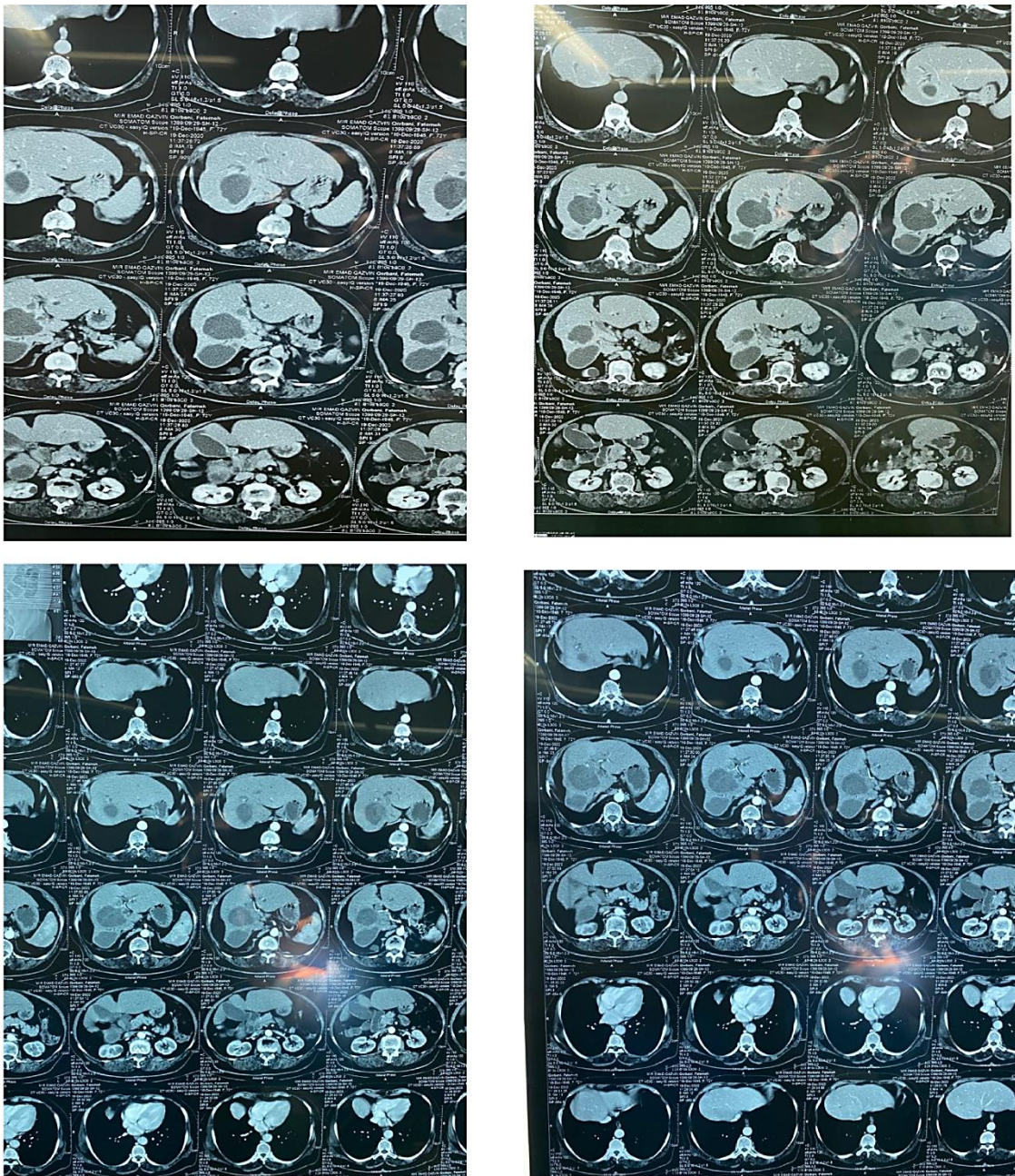


Figure 1. Hydatid cyst in the liver and bile ducts

Discussion

Human infection with *E. granulosus* occurs accidentally. The eggs contaminate and spread through the feces of infected dogs. The eggs are resistant to drying and remain in the living environment for weeks. Therefore, they can infect a person with delay and without direct contact with carrier animals.¹⁻³ The parasite

enters the human body when food or water is contaminated and contains the parasite's eggs. As soon as the parasite's eggs are eaten, they enter the small intestine and through this enter the veins and lymphatic vessels, and spread to various organs of the body, such as the liver and lungs, and after a while, they turn into larval cysts.^{1,2} The cysts grow to 5 to 10

centimeters in a year and may survive for years or even decades; thus, they cause blockages. Symptoms are usually absent, and in many cases, the infection is accidentally detected on imaging for other reasons. Abdominal and pelvic cysts can cause swelling and pain in the abdomen.³ Imaging methods are more sensitive than serological tests to detect this parasite. ERCP is used as the gold diagnostic standard.⁵ The best treatment for patients with hydatid cyst is surgery, which can completely remove the cysts from the body and cure the patient. The use of drugs such as albendazole and mebendazole is useful in cases where the patient is inoperable, in the case of liver and lung cysts, or in people with more than two organs involved.³

Conclusion

In endemic areas from the point of view of hydatid cyst, in the case of a patient who presents with lower abdominal pain and gives a history of life in endemic areas, hydatid cyst should be considered as one of the differential diagnoses for the cause of abdominal pain.

Conflict of Interests

Authors have no conflict of interests.

Acknowledgments

The author thanks Qazvin University of Medical Sciences for supporting this article.

Financials support and sponsorship

There was no financial support.

References

1. Gessese AT. Review on epidemiology and public health significance of hydatidosis. *Vet Med Int.* 2020; 2020: 8859116.
2. Chalechale A, Hashemnia M, Rezaei F, Sayadpour M. Echinococcus granulosus in humans associated with disease incidence in domestic animals in Kermanshah, west of Iran. *J Parasit Dis.* 2016; 40(4): 1322-9.
3. Ghafouri M, Seyed Sharifi SH. Pelvic hydatid cyst in a young woman; a rare case report. *J Rafsanjan Univ Med Sci.* 2016; 14(12): 1095-102.
4. Elnibras M, Al-Ruwaili S, Al-Ghamdi F, Alasmari M, Alhamdi M, Alasmari K, et al. Prevalence, causes and management of obstruction of common bile duct: Review article. *J Pharm Res Int.* 2021; 33(47B): 384-90.
5. Anwer M, Asghar MS, Rahman S, Kadir S, Yasmin F, Mohsin D, et al. Diagnostic accuracy of endoscopic ultrasonography versus the gold standard endoscopic retrograde cholangiopancreatography in detecting common bile duct stones. *Cureus.* 2020; 12(12): e12162.