

A Case of Fascioliasis from South-East of Iran

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Article information	Abstract
Article history: Received: 15 Jan 2013 Accepted: 12 Mar 2013 Available online: 22 May 2013 ZJRMS 2013; 15(12): 40-41	Fascioliasis is a zoonotic infection caused by <i>Fasciola hepatica</i> . Human is accidentally infected by ingesting contaminated drinking water or plants in endemic area (mainly North of Iran). The disease is usually reported from the sheep raising area of our country. We report a case of human fascioliasis in south-eastern Iran with dry climate without any history of travel to endemic regions.
Keywords: Fasciola hepatica Fascioliasis Iran	Copyright © 2013 Zahedan University of Medical Sciences. All rights reserved.

Introduction

Infection with the liver fluke, *fasciola hepatica*, is a zoonosis which is distributed throughout the world, except the Antarctica. Human fascioliasis has been reported from many countries, particularly from Cuba, Bolivia, Peru, Algeria, Egypt, Iran, Portugal, France and Australia [1, 2]. Fascioliasis is an important emerging disease of humans, especially in sheep raising area like Guilan and Mazandaran (Northern Iran); and in the western province of Iran [3-5]. Humans become accidentally infected by ingesting contaminated drinking water or plants in endemic area. After ingestion of the metacercariae, the larvae migrate through the intestinal wall, pass into the peritoneal cavity, penetrate the liver capsule and finally mature in the bile ducts [6]. The definitive diagnosis is made by demonstration of eggs in stool samples, bile or duodenal aspirates or the discovery of worms at surgery [6]. Hereby we report a case of fascioliasis from south-eastern Iran without any history of travel to endemic area for the disease.

Case Presentation

A 61-year-old man with a history of cough and abdominal discomfort was referred to a physician for further evaluation. The disease started approximately 3 months before his first visit with a non-productive cough and a dull and light epigastric and right upper quadrant pain. The pain was not progressive and not related to ingestion or physical activity. The patient was living in Zahedan, the capital of Sistan and Baluchestan in the southeastern Iran. He denied any travel; especially to the North of Iran but he had history of fresh vegetable consumption. Physical examination was unremarkable, except for mild tenderness in abdominal right upper quadrant.

In laboratory investigations, a white blood cell count of 4400/mm³ with a 26% predominance of eosinophils was

detected. Liver function tests were normal. Chest radiographs showed no abnormalities. On ultrasonography, a soft tissue mass of 8-18 mm in diameter was found in the gall bladder fundus. Abdominal computed tomography scan showed focal thickening of the gall bladder wall, especially at the fundus with normal size and density of the liver (Fig. 1). During surgical exploration and cholecystectomy *fasciola hepatica* parasites were observed. Histological examination confirmed the diagnosis and chronic cholecystitis with *fasciola hepatica* parasites was reported (Fig. 2). A single oral dose of triclabendazole was prescribed and the patient's sign and symptom subsided gradually. A repeated oral dose of triclabendazole was given to the patient 2 weeks later. During 4 months follow-up after surgical and medical treatment, the patient was free of symptom.

Discussion

Fascioliasis was mainly seen in developing countries but the number of cases in the developed countries has increased in the last decade because of the increase of traveling and immigration. The northern part of Iran with temperate climate is an endemic region for this disease. Sistan and Baluchestan is one of the 31 provinces of Iran. It is the largest provinces in the southeast of the country, bordering Pakistan and Afghanistan and its capital is Zahedan. This region is one of the driest regions of Iran.

Studies in slaughterhouses indicate that sheep and cattle may be the main reservoir species for fascioliasis in endemic region. The results of a study in Mazandaran (North of Iran) revealed the prevalence of 7.3 and 25.4 in sheep and cattle, respectively [3].

Some unusual cases of the disease were noticed from different reports, for example a patient from Hamedan (Iran) with cholangitis and from Gorgan (northern Iran)



Figure 1. *Fasciola hepatica* detected in the gall bladder after cholecystectomy

with extrahepatic dilatation [7, 8]. Bithional at 30-50 mg/kg on alternate days for 10 to 15 doses is the treatment of choice. Triclabendazole is another effective treatment against *fasciola hepatica* and a single oral dose of 10 mg/kg usually eliminates the infestations in approximately 75% of the cases. As was mentioned earlier fascioliasis is a cosmopolitan zoonosis throughout the sheep raising areas of the world. We report a patient with *fasciola hepatica* from south-eastern Iran, one of the driest regions of the country without any history of travel to endemic area with the disease. We suggest that the patient was infected with consumption of fresh vegetable from his living area. Therefore, other cases would be expected in the future from this region.

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Figure 2. Abdominal computed tomography scan showing focal thickening of the gall bladder wall

Authors' Contributions

All authors had equal role in design, work, statistical analysis and manuscript writing.

Conflict of Interest

The authors declare no conflict of interest.

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