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FASCIOLA HEPATICA AS A NECK MASS

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ABSTRACT

Fasciola hepatica is a liver fluke of mammals widely distributed throughout the world. Clinical presentations of this parasite are usually biliary manifestations but in ectopic fascioliasis, symptoms are totally different and diverse. In this report we present a 24 year-old woman with a mass in her neck, a rare manifestation of the disease that seems to have many unknown aspects.

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Introduction

Fascioliasis is widely distributed disease affecting up to 17 million people worldwide and about 10,000 people in Iran [1-5]. It is caused by a trematode fluke, Fasciola hepatica, which has a complex life cycle in mammals and snails. Consumption of contaminated water and vegetables are major ways for metacercariae to enter human body [reference, 6]. Ectopic fascioliasis (EF) occurs when the larvae migrates to sites other than liver such as the subcutaneous tissue[7], brain[8], lungs[9], inguinal lymph nodes[10] and in gastrointestinal (GI) system organs [11,12]. Here we report a rare manifestation of ectopic fascioliasis mimicking a tumor mass in neck.

Case Report

A 24 year-old woman from Deylam village near Shoushtar city in Iran was admitted with a history of neck mass in her anterior aspect of left thyroid lobe. The mass was 2 cm x 5 cm in size with extension and adhesion to skin, without a significant size increase over two-month admission. Contact with cow, rooster, and regional meadow animals was reported. The vital signs were stable and no fever,,dysphagia, odynophagia, respiratory distress or voice changing was recorded. No night sweating or significant weight loss was found and no symptoms of hypo/hyperthyroidism were observed. The mass had a firm consistency and was adherent to adjacent skin with no mobility and nodularity in palpation, it was a little tender and no LAP was detected. No fluctuation and no abscess formation were seen. Adjacent skin was a little tender with lack of erythematous or any change in color. Other head and neck exams were normal. Cytologic studies of thyroid FNA revealed cellular smears consisting of many macrophages and neutrophils in dirty proteinous and hemorrhagic background. Follicular cells were not detected and low patchy thick colloid was observed in the specimen. In laboratory findings, blood test showed granulocytosis. A

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computerized tomography (CT) with IV contrast was carried out which revealed a large (52 mm × 44 mm ×25 mm) solid mass containing multiple cystic components and multiple internal enhancing septa in anterior aspect of lt thyroid lobe. Figures 1-3 show the images obtained during para-clinical studies.

In operation room, after elevating the skin flap, some necrotizing nodules with severe adherence to adjacent structure and firm consistency in lt strap muscle was seen.

The nodular mass resected and sent for pathologic evaluation. The lt thyroid lobe had a nodule, with soft consistency, and mobile with no adhesion. The appearance was benign and lobectomy-isthmectomy were performed. Pathology diagnosis of the strep muscle biopsy and thyroid reported muscular layer with presence of severe acute and chronic inflammation, necrotizing and palisading granulomatous reaction around parasitic larvae. Thyroid analysis revealed inflammation, without signs of malignant changes. Serologic studies were performed and detected larvae was confirmed as F. hepatica.

Figure 1

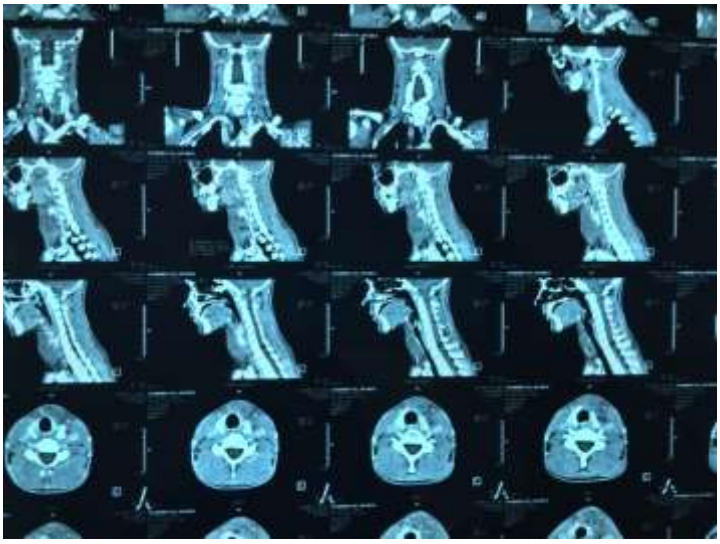

Figure 2

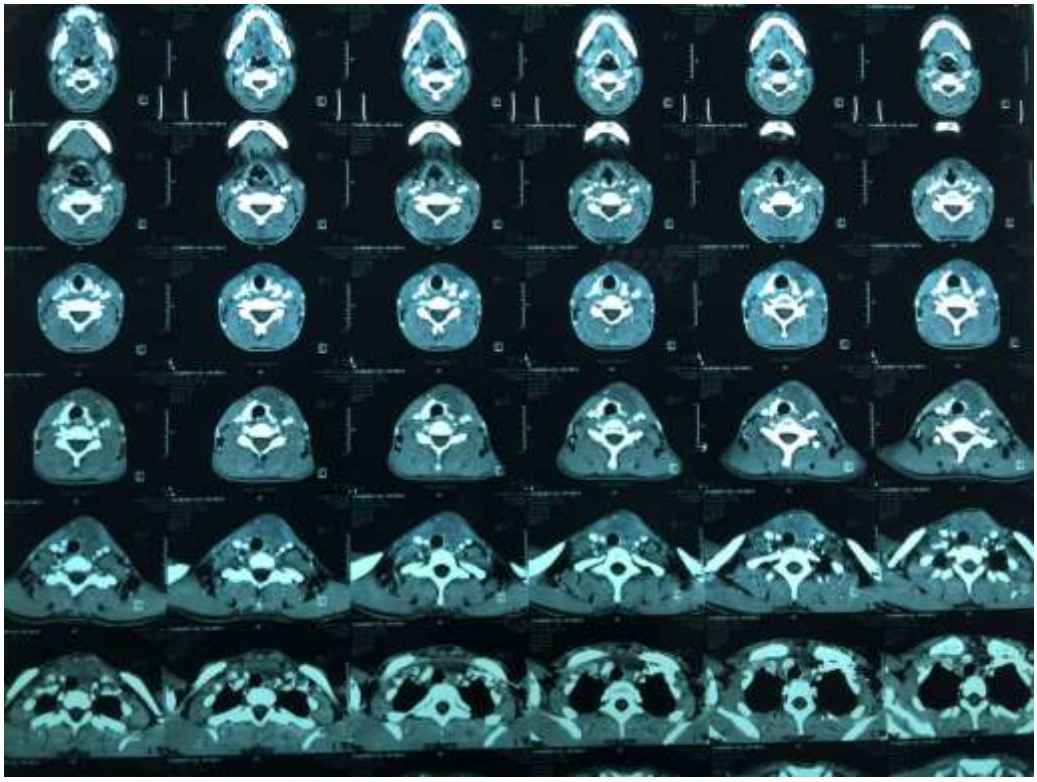

Figure 3

Discussion

Fasciola hepatica is a liver parasite, infecting humans by ingesting contaminated water and vegetations with metacercariae. The trematode then usually penetrates intestine wall and migrates to liver parenchyma passing peritoneal cavity, where they become mature, they reside in biliary duct where the eggs are discharged. Ectopic Fascioliasis can occur due to migration of larvae to other sites than liver. Cases of different type of localizations have been reported involving GI tract, muscles and lungs, lymph nodes. In such cases histological analysis revealed chronic inflammation and granuloma with giant cells and the parasite eggs. Meanwhile, just a few cases reported EF in neck as in this case (references). Immunohistochemistry examination was not carried out for the specimens here but in another case reported cervical tumor caused by sexually mature of Fasciola hepatica, Fas2 antigen was detected which is also related to fascioliasis [13]. Due to few EF cases reported, eosinophilia and stool examination for ova and parasites showed different answers and they are not trustable tests to RO parasitic infections. Ectopic fascioliasis could have similar manifestations with other disorders, in some cases it seems to be hard to differentiate an EF from tumors. It may also affect other organs due to metabolites and secretory products. As fascioliasis is prevalent in endemic and hyperendemic areas like Bolivia, Iran [5], Ecuador and Peru [14,15] and number of reported ectopic fascioliasis cases are increasing in recent years, clinical symptoms of fascioliasis seem to be far more diverse, which makes fascioliasis a potential diagnosis in a wide variety of disorders.

Conclusion

In conclusion, we emphasize on the fact that EF can conquer different places in body. Performing fascioliasis tests is recommended to ascertain trematode infection, in endemic areas, and patients with history of related animal contacts; we suggest not to ignore serology analysis or immunohistochemistery studies, to make more accurate decision.

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