CUTANEOUS FASCIOLIASIS: A CASE REPORT IN VIETNAM

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Abstract. A 40-year-old woman living in Gialai, Kontum, Vietnam, developed a red solid mass in the epigastric region. From ultrasonography, investigation, liver abscess and myositis of the intercostal muscle was diagnosed. Two weeks after treatment with antibiotics, the mass disappeared, but a migratory track developed in the right upper quadrant of the abdomen. An aspiration of the vesicular end of the serpiginous track showed a light brown, living worm that was later identified as an immature Fasciola sp. This is the first case report of cutaneous fascioliasis in the form similar to creeping eruption.

INTRODUCTION

Human fascioliasis has been reported worldwide. Infection is of two types, with hepatic and extrahepatic organ involvement. Ectopic infections were reported mainly in organs and subcutaneous tissues in the abdominal region. They were also found in lungs, heart, eyes, brain, and lymph nodes. 1–6

The first two cases of human fascioliasis were reported in Vietnam in 1978. Subsequently, infection with large liver flukes was frequently found in humans. During the years 1997–2000, 500 cases were diagnosed based on clinical manifestations, computed tomographic images, serologic tests, and ultrasound evidence. Apparently two-thirds of the patients were female and 85% were 21–50 years old. The disease was distributed mainly in central Vietnam and the midland provinces. Almost all patients had hepatic symptoms. 7 This paper reports a case of Fasciola infection with hepatic lesions and a cutaneous manifestation similar to that of larva migrans syndrome.

CASE REPORT

On June 24, 2000, a 40-year-old woman came to Medic Medical Center in Ho Chi Minh City with a burning pain at her right upper quadrant (RUQ) and a dark red serpentine track under the skin at the same site. She was working on a farm in Gialai Province, and had the habit of feeding cows, dogs, and cats, and sometimes picking raw watercress. One month before, the patient had anorexia, asthenia, dizziness, and an epigastric pain that irradiated to the RUQ region. She was admitted to the local hospital on June 2, and prescribed an antibiotic (ceftoxin, a third-generation cephalosporin), steroids, an analgesic, and vitamins. After two weeks of treatment, the mass disappeared, but a migratory track developed in the right upper quadrant of the abdomen. An aspiration of the vesicular end of the serpiginous track showed a light brown, living worm that was later identified as an immature Fasciola sp. This is the first case report of cutaneous fascioliasis in the form similar to creeping eruption.
counts, the proportion of eosinophils remained unchanged at 2%. 

Worm description. The fluke was 10 mm long and 5 mm wide when alive, and 21 × 5 mm after being stained with acid carmine (Figure 2). It was thin, long, and widest at the middle of the body. The ventral sucker was close to the oral sucker and located at the base of the cephalic cone. The esophagus was well-developed and divided into two dendritic ceca extending to the posterior end. The fluke presented internal structures similar to Fasciola, the large liver fluke.

DISCUSSION

Ectopic infection with fascioliasis is not uncommon in humans, with reports of 16 of 185 cases, 2 of 25 cases, and 2 of 500 cases. Subcutaneous infections have also been reported in 14 of 24 ectopic infections and 1 of 11 cases, and 10 of 16 cases were subcutaneous or muscular infections. In the present case, the parasite was a large fluke migrating to the skin, making an angular track in the RUQ region. The two concave holes at the beginning of the track might have been places where the fluke could come in and out, and it had possibly entered the track twice.

In Spain, there was a report of unusual forms of F. hepatica infection, in which a case presented with both subcutaneous and epidermal locations during the course of hepatic fascioliasis, and another case of nervous system infection. This seemed to be the first report of epidermal fascioliasis appearing as a localized inflammation of the skin, but not in migratory track similar to creeping eruption. Creeping eruption has been reported in animal hookworm infection and gnathostomiasis, but this type of infection in Fasciola has not been recorded in the literature. Our case seems to be the first report of fascioliasis with a migratory vesicular track. Fasciola gigantica is prevalent among humans and animals in southeast Asia. In Vietnam, Fasciola infection rates among herbivorous animals, especially cattle, have been reportedly up to 30–40%. Most of the cases were Fasciola gigantica. A polymerase chain reaction and nucleotide sequencing techniques have recently showed the presence of F. gigantica among six samples collected from humans and cattle. It is assumed that our case was also a F. gigantica infection.

The cutaneous sign of larva migrans in our case appeared after the patient received an antibiotic. Infection of this case could not occur through skin penetration of an excysted metacercaria or a juvenile worm. Holes at the beginning of the creeping track confirmed that the worm came from inside the body. In the case of gnathostomiasis, after the patient takes albendazole, gnathostome larva have a tendency to migrate more superficially and may be easily removed from the body. It is possible that the creeping track in this case also resulted from a juvenile Fasciola migrating to the skin after treatment. Further observations are needed before this hypothesis can be proven.

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