A Case Report of Fasciola hepatica for the First Time in Nepal

Ranjit Sah1, Shusila Khadka1, Mohan Khadka1, Bharat Mani Pokhrel1, Jeevan Bahadur Sherchand2, Keshab Parajuli1, Niranjan Prasad Shah3, Shyam Kumar Mishra1, Sangita Sharma1, Hari Prasad Kattel1, Basista Rijal1

1. Department of Microbiology, Tribhuvan University and Teaching Hospital (TUTH), Institute of Medicine, Kathmandu, Nepal.
2. Public Health Research Laboratory, Tribhuvan University Institute of Medicine, Kathmandu, Nepal.
3. Department of Medicine (Gastroenterology), Tribhuvan University and Teaching Hospital (TUTH), Institute of Medicine, Kathmandu, Nepal.

INTRODUCTION

Fascioliasis is a zoonotic disease caused by Fasciola hepatica. Patient generally presents with jaundice and biliary colic or right upper abdominal pain due to bile duct obstruction. We report a case of obstructive jaundice whose peripheral blood smear revealed eosinophilia. The patient also gives the history of consumption of water-cress. ERCP showed the presence of a flat worm resembling Fasciola hepatica and stool routine examination revealed ova of Fasciola hepatica. The patient was treated with Nitazoxanide and its morphological characteristics were investigated and treated accordingly.

RESULTS

The morphology of the adult worm revealed flat, leaf like measuring approximately 2 to 2.5 cm in length by 1 cm in breadth and brown to pale grey in colour (fig no.3). It had a distinct conical projection at the anterior end and broadly pointed posterior end. On microscopic examination of stool, it was yellowish-brown with soft consistency. Microscopic examination of the wet mount of the stool sample showed large, elliptical to oval, operculated, light yellowish brown ova (fig no.4,5,6) measuring 140-142 μm by 70-75μm (fig no.7). On the basis of morphological appearance of adult worm and characteristic feature of the detected ova and its measurement, Fasciola hepatica was identified. The photographs of the ova was confirmed as ova of Fasciola hepatica by CDC. Patient was treated with Nitazoxanide 500mg twice daily for 5 days and follow up stool examination two weeks after treatment revealed no ova of Fasciola hepatica.

METHODS AND MATERIALS

The adult worms were received in our laboratory and its morphological characteristics were studied. Patient stool sample was collected and processed for routine macroscopic and microscopy examination. For increased yield of ova, stool was concentrated by modified zinc sulphate concentration technique and wet mount was prepared for microscopy. The size of the detected ova was measured using cell sensation software version 1.12 for DP73 camera installed to the Olympus BX53 microscope used for the microscopy. The photographs of the ova was sent to CDC (Centre for Disease Control and prevention) for confirmation.

CONCLUSIONS

Parasitic infestations are common in developing countries. However, they are wrongly diagnosed as other medical or surgical conditions and remain untreated for long. Infections like fascioliasis can be diagnosed by simple stool routine microscopy examination and their treatment is simply a short course of anti-helminthic therapy. So, patient with symptoms of obstructive jaundice, eosinophilia and history of water-cress consumption should be suspected for fascioliasis and investigated and treated accordingly.