Case Report

ASYMPTOMATIC SCHISTOSOMIASIS HAEMATOPIA: AN IMPORTED CASE

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Abstract: Stool and urine examinations revealed eggs of Schistosoma haematobium in a 31-year-old asymptomatic Japanese female returned from Africa. She was treated with praziquantel, and good therapeutic result was obtained. However, as S. haematobium is not indigenous to Japan, most Japanese doctors and medical technologists are unfamiliar with this parasitic disease, they need to be reminded of its existence when they encounter persons who have visited or resided in endemic areas, and of the necessity of urine and stool examinations of such persons.

Key words: Schistosoma haematobium, schistosomiasis, praziquantel

INTRODUCTION

Schistosomiasis haematobia, a common helminth disease caused by the infection with Schistosoma haematobium in certain countries in Africa and western Asia, is a major public health problem in endemic areas (Mahmond, 1988). Although many Japanese now travel to or stay in tropical or subtropical areas where S. haematobium is endemic, only a very small number of Japanese patients have been reported in Japan in the 1990's (Yamaguchi et al., 1993; Kobari et al., 1996; Ohnishi, 1997). Recently, we treated an asymptomatic Japanese female patient infected with S. haematobium who had recently returned from Africa. The purpose of this report is to emphasize the importance of parasitological investigation for people who have visited or resided in tropical developing countries, even if no symptoms of infection are evident.

CASE DESCRIPTION

A 31-year-old female Japanese stayed in Niger from January 1995 to April 1997 as a member of Japan Overseas Cooperation Volunteers. Subsequently, she traveled in Côte d'Ivoire, Ghana, Togo, Cameroon and Thailand, and she returned to Japan on May 2, 1997. During this period, she came into contact with water from both a river and a pond in Africa. Although she had no symptoms, she was referred to my outpatient clinic on May 2, 1997, because a health examination on her return to Japan had revealed Entamoeba cysts in her stool. She was initially treated with oral administration of metronidazole. Eggs of S. haematobium (Fig. 1) were revealed by centrifugation sedimentation stool examination on May 8, and urine examination on May 15, 1997, but neither macroscopic nor microscopic haematuria was found. The urine mentioned above was obtained at about 11:00 a.m. Her blood count and serum biochemical tests were normal, except for her blood eosinophil count, which was 750/mm³ (WBC 9,600/mm³; 7.8%)

Figure 1 Schistosoma haematobium egg with a distinct terminal spine in stool (×380).
eosinophils) on May 2, 1997. She was diagnosed as having S. haematobium infestation, and was treated with oral administration of 30 mg/kg and 20 mg/kg doses of praziquantel on the mornings of and evenings of May 22 and 23, 1997, respectively. Neither side effects nor abnormal laboratory changes due to this drug were found. Urine, which were obtained between 10:30 and 11:30 a.m. and stool examination on May 29 and August 11, 1997 revealed no eggs of S. haematobium, and her blood eosinophil count was 260/mm³ (WBC 5,200/mm³; 5.0% eosinophils) on August 11, 1997.

DISCUSSION

The intermediate hosts of Schistosoma spp., several types of snails, discharge cercariae, the larval stage of Schistosoma spp., in fresh water. On contact with the skin of humans, cercariae of S. haematobium penetrate into the skin, enter the venous circulation, and grow in the intrahepatic portal vessels. Subsequently, they migrate into the rectal veins and vesical and pelvicplexuses, and the female worms produce eggs in the venules (Beaver et al., 1984). Eggs were found in both the stool and urine in my patient, indicating that the female worms may have produced eggs in the vessels of both the lower part of the colon and urogenital systems. Although many Japanese have traveled to or stayed in S. haematobium-endemic areas and come into contact with river or pond water, few cases of schistosomiasis haematobia have been reported in Japanese patients. This disease may have been overlooked in many Japanese patients because cases infected with only small number of worms are commonly asymptomatic and Japanese doctors and medical technologists are unfamiliar with this disease. The number of Japanese contracting schistosomiasis haematobia will increase as more people travel to S. haematobium-endemic areas. Japanese doctors and medical technologists should be aware of this disease when they encounter people who have returned from such areas, and of the necessity of the urine and stool examinations of these people.

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REFERENCES