

Infection with male and female *Trichuris trichiura* diagnosed in a non-epidemic area

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December 6, 2022

Manuscript title

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Consent statement: Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

Key words: endoscopy, *Trichuris trichiura*, parasite, whipworm

Conflict-of-interest statement: We have no financial relationships to disclose.

Funding and Acknowledgement details: None

Explanation

A Burmese man in his 20s underwent colonoscopy at our hospital in Japan because of abdominal discomfort. He had come to Japan from Myanmar two years ago and had worked on a pig farm. He had had diarrhea for five months and was taking a drug for controlling intestinal function but had persistent abdominal discomfort. Blood samples showed elevated fractions of eosinophils (white blood cells 7900/ μ L, eosinophils 15.6%). Colonoscopy (PCF-H290ZI; Olympus, Tokyo, Japan) showed that there were four whipworms including one brown whipworm and three white whipworms in the cecum and ascending colon. The white whipworm was attached to the cecum mucosa ([Fig. 1], [Fig. 2]). The brown one was detected at the ascending colon. Magnified endoscopy and narrow band imaging showed that it had a stripe pattern and that its cranium was burrowing under the colonic mucosa ([Fig. 3]). The whipworms coiled themselves up and wound slowly

in response to a stimulus. We removed all of them by using biopsy forceps. Histopathological examination revealed that the brown one was a female whipworm (*Trichuris trichiura*) and the three white worms were male ([Fig. 4], [Fig. 5]). The female had a uterus with worm eggs. The egg inspection was negative. After oral administration of Mebendazole, his abdominal discomfort disappeared.

T. trichiura infection is prevalent in tropical regions and non-epidemic in Japan. *T. trichiura* is thought to live for one to eight years as an adult [1]. Therefore, the worms that the patient was infected with in Myanmar could have lived for two years in Japan. *T. trichiura* parasitizes only humans through fecal-oral transmission. In non-epidemic areas, the frequency of endoscopic identification has been increasing due to the increasing number of immigrants from epidemic countries [2]. To prevent infection, it is important to pay attention to sanitary conditions such as soil and water sources [3].

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Intestinal worms

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Figure 1

A white whipworm in the cecum. Histopathological examination revealed that it was a male worm. The other two white whipworms were in the ascending colon.

Figure 2

A brown whipworm in the ascending colon. Histopathological examination revealed that it was a female worm.

Figure 3

A picture of the female worm obtained by using narrow band imaging showed that its cranium was burrowing under the colonic mucosa.

Figure 4

Histopathological image of a male whipworm.

Figure 5

Histopathological image of the female whipworm.





