

VIDEO | COLON

# Detailed Observation of Fish Tapeworm Using Colonoscopy

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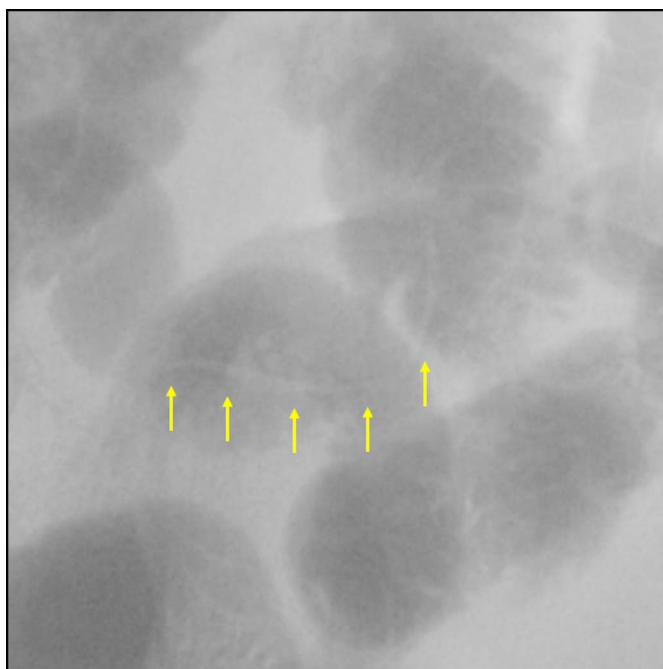
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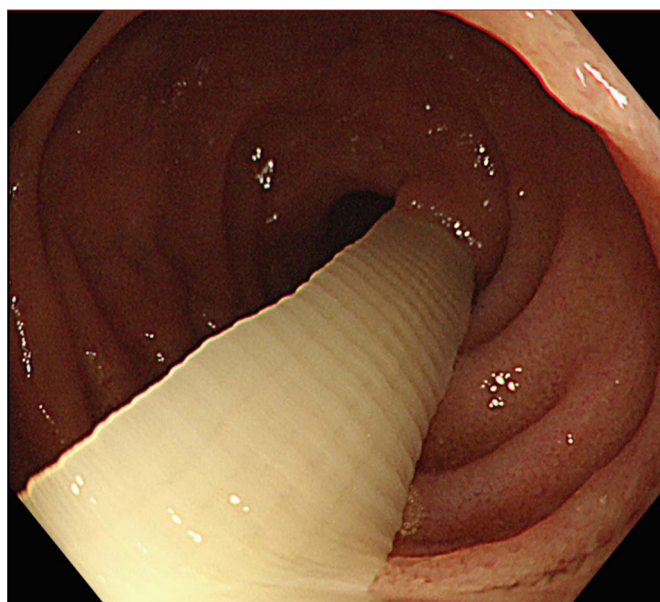
## CASE REPORT

A 35-year-old Japanese man was admitted for a suspected tapeworm infection. Accordingly, 400 mL oral gastrografin was initially administered, followed by contrast-enhanced intestinal radiography. A tapeworm was observed as a moving linear filling defect on the radiograph (Figure 1). After 1 hour of gastrografin administration, the tapeworm exited through the anus. Subsequently, a colonoscope (PCF-290ZI; Olympus, Tokyo, Japan) was inserted into the anus to completely remove the tapeworm, and a living tapeworm was detected in the colon and ileum (Figure 2). The tapeworm was pulled into the colonoscope by holding the scolex (head) using grasping forceps (Figure 3). Finally, the tapeworm was completely removed.

As eating raw fish has become more popular, fish tapeworm infection is a more common global concern. There are 3 major tapeworm species: fish tapeworm (*Diphyllobothrium latum*), beef tapeworm (*Taenia saginata*), and pork tapeworm (*Taenia solium*).<sup>1</sup> Several



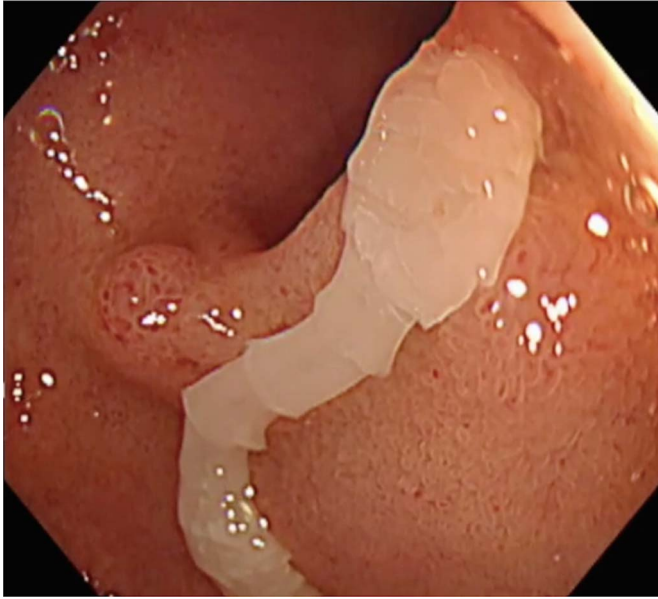
**Figure 1.** Contrast-enhanced intestinal radiography showing linear filling defect.



**Figure 2.** Colonoscopic image showing a living tapeworm detected in the colon and ileum.

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**Figure 3.** Colonoscopic image showing the scolex of living tapeworm.

cases of *Diphyllobothrium nihonkaiense* infections have been reported in the coast of the Sea of Japan. *Diphyllobothrium* tapeworms are among the largest parasites in humans and can grow up to a maximum length of 25 m.

Tapeworm is usually removed by the administration of oral gastrografin or praziquantel; however, it is difficult to identify the scolex of tapeworm and completely remove it. In this case, we used colonoscopy to identify the scolex of a living tapeworm in detail and completely removed the tapeworm after the administration of oral gastrografin. Some previous studies have reported the observation of tapeworms using video capsule endoscopy or colonoscopy.<sup>2,3</sup> However, there are no video reports of the scolex of living tapeworm

observed in detail. In the present case, the scolex of a living tapeworm was observed by colonoscopy in detail (Video 1; watch the video at <http://links.lww.com/ACGCR/A6>).

**Video 1.** Video showing the observation of the scolex of living tapeworm by colonoscopy. Watch the video at <http://links.lww.com/ACGCR/A6>.

## DISCLOSURES

Author contribution: S. Miyamoto and S. Hayasaka wrote the manuscript. Y. Kudo, Y. Sasaoka, S. Yoshida, K. Kinoshita, J. Ito, T. Kudo, K. Hatanaka, Y. Yamamoto, H. Naruse, and N. Sakamoto edited the manuscript. S. Miyamoto is the article guarantor.

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Informed consent was obtained for this case report.

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