

Anisakis larva involving the esophageal mucosa

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Anisakiasis is a common GI disease caused by an infection of *Anisakis* larvae, and its most common sites of infection are the stomach and small intestine.¹⁻⁴ We report a case of esophageal anisakiasis diagnosed and treated endoscopically.

CASE REPORT

A 49-year-old man with a history of hyperlipidemia, hypertension and alcoholic liver disease presented to our hospital with severe epigastric pain and abdominal fullness of 1-day duration. Physical examination was unremarkable and his abdomen was not distended. Laboratory data showed a slight elevation of total cholesterol, but leukocytosis was not apparent. Because he had eaten raw fish (mackerel sashimi), upper GI endoscopy was performed because of a clinical suspicion of anisakiasis. This revealed a white worm burrowing into the mucosa of the distal esophagus, which began moving about after washing the mucosa with water (Fig. 1). In the stomach and duodenum, there were no worms or granulomatous formations. The worm was removed through the accessory channel of the endoscope with a biopsy forceps (Fig. 2). The patient's symptoms

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Figure 1. Endoscopy showing a worm burrowing into the esophageal mucosa.



Figure 2. The worm was caught with a biopsy forceps passed through the accessory channel of the endoscope.

disappeared immediately after removal of the worm. Microscopic examination of the retrieved specimen showed that the worm was a *Anisakis* larva.

DISCUSSION

Anisakiasis of the alimentary tract is frequently caused by ingestion of *Anisakis* larvae present in raw or undercooked fish such as sashimi, sushi, and ceviche.⁴ This disease has been recognized in

several countries because of the current popularity of these raw marine fish dishes. The most common sites of infection are the stomach and small intestine.¹⁻⁴ Although a few case reports have documented rare sites such as the colon^{5,6} and tonsils,⁷ our review of published English language reports (Medline, 1962 to 1998) did not identify any case of anisakiasis of the esophagus. Muraoka et al.³ demonstrated the relationship between the activities of *Anisakis* larvae and the pH of the stomach, and it seems it would be difficult for the larvae to remain alive in a milieu with such a low acidity as the esophagus. However, in the patient we have described here, the *Anisakis* larva was found in the esophageal mucosa, whereas no abnormal findings including an eosinophilic granulomatous mass were detected in the stomach or duodenum. These observations suggested that a single *Anisakis* larva in the esophagus can cause symptoms as severe as those of GI anisakiasis. Thus, it is important to bear in mind that in humans, *Anisakis* larvae may involve not only

the stomach and small intestine, but also the esophagus.

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