

Case report

Asymptomatic anisakiasis of the colon incidentally diagnosed and treated during colonoscopy by retroflexion in the ascending colon

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Abstract

A 74-year-old man with diabetes underwent colonoscopy as routine screening for colon cancer. An *Anisakis* larva was found incidentally during colonoscopy using the retroflexion technique in the ascending colon, and was removed using a forceps. Asymptomatic colonic anisakiasis is very rare, and few reports have described diagnosis and treatment of anisakiasis during colonoscopy by the retroflexion technique in the ascending colon. We have reported this rare case along with a literature review.

Key words: asymptomatic, colonic anisakiasis, retroflexion in the ascending colon, anisakiasis diagnosed incidentally, *Anisakis* larva

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Introduction

Anisakiasis can involve any part of the digestive tract, but most cases reported have involved the stomach; few reports have described colonic anisakiasis^{1, 2}. Furthermore, asymptomatic colonic anisakiasis appears to be very rare^{1, 2}. We report herein a case of asymptomatic anisakiasis in the ascending colon that was diagnosed and treated during colonoscopy using the retroflexion technique.

Case Report

The patient was a 74-year-old man with no notable previous medical history other than diabetes. He underwent colonoscopy as routine screening for colon cancer. The Olympus video colonoscope (PCF-Q260AI, Olympus Corporation, Tokyo, Japan) was used. After cecal intubation, the colonoscope was withdrawn to the hepatic flexure to perform a forward-viewing examination, but no abnormalities were apparent in the cecum or ascending colon. The retroflexion technique was then performed, and a worm suspected to represent an *Anisakis* larva was found embedded in the mucosa of the ascending colon (Fig. 1). The larva was removed using a biopsy forceps and was submitted for examination (Fig. 2), which confirmed an *Anisakis* larva. The patient had no complaints before or during colonoscopy. Subsequently, the patient reported frequently eating raw squid.

Discussion

Anisakiasis is a human parasitic disease caused by ingestion of raw fish and seafood infested with *Anisakis* larvae. About 20,000 cases of anisakiasis are reported annually worldwide, with over 90% reported from Japan³. Some cases have been reported from the rest of the world, including Spain, the Netherlands, and Germany³. Anisakiasis has four major clinical forms: gastric anisakiasis with epigastralgia, nausea, and vomiting, which is abrupt in onset and generally occurs 1–12 h after ingestion of raw seafood infested by *Anisakis* larvae; intestinal anisakiasis, which presents with intermittent or constant abdominal pain 5–7 days after ingesting food infested with *Anisakis* larvae and sometimes with ascites or peritoneal signs; ectopic or extra-gastrointestinal anisakiasis, caused by *Anisakis* larva penetrating the stomach or intestine; and allergic reactions, presenting as

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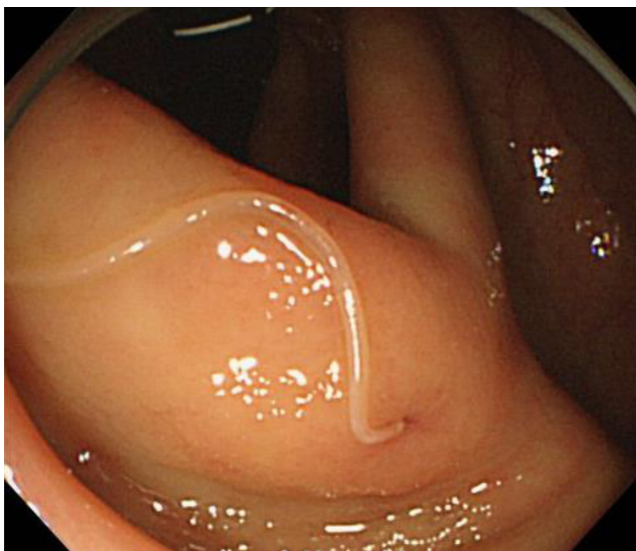


Figure 1 *Anisakis* larva penetrating into the mucosa of the ascending colon during colonoscopy by retroflexion in the ascending colon.

anaphylaxis, urticaria, and angioedema³⁻⁵). Colonic anisakiasis is rare and difficult to diagnose, and patients develop abdominal pain lasting from several weeks to 1 month⁶. The right side is involved in more than half of the patients with colonic anisakiasis, and as no anthelmintic agents are available for this nematode, effective treatment in acute cases involves endoscopic removal of the *Anisakis* larvae^{3, 6}. Asymptomatic colonic anisakiasis is rarer, but some cases have been reported in which asymptomatic colonic anisakiasis was diagnosed and treated colonoscopically, as in this case^{1, 2}. Those cases involved the ascending colon, but no reports have described finding *Anisakis* larva using retroflexion in the ascending colon, and, as inferred from the figures provided in those reports, the *Anisakis* larvae were identified in the ascending colon via forward view examination¹. Tamai *et al.* reported that they diagnosed and treated asymptomatic anisakiasis incidentally during colonoscopy, and they submitted a figure that revealed an *Anisakis* larva penetrating the mucosa of the ascending colon by retroflexion in the ascending colon, but the patient in that case had a submucosal tumor (SMT) about 3 cm in diameter in the ascending colon, and the *Anisakis* larva was found behind the SMT⁷. Colonic anisakiasis often manifests as an SMT^{7, 8}. In our case, the anisakiasis did not manifest as an SMT, and the *Anisakis* larva was incidentally found penetrating the mucosa and was removed during routine colonoscopy by retroflexion in the ascending colon.

Colonoscopy by retroflexion in the ascending colon is a useful technique, but a literature search on PubMed using

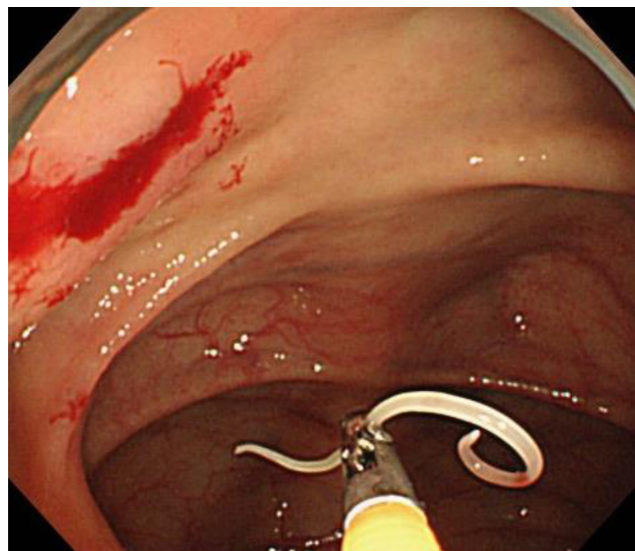


Figure 2 *Anisakis* larva removed by biopsy forceps.

‘retroflexion’ and ‘ascending colon’ as keywords revealed only four reports, all of which were regarding the diagnosis of adenoma⁹⁻¹². No reports have documented the technique of retroflexion in the ascending colon leading to the diagnosis and treatment of anisakiasis, as in this case. Detection of a polyp hidden in the proximal portion of the right-sided colon or the medial aspect of the hepatic flexure is difficult^{9, 13}. However, retroflexion in the ascending colon is more likely to be successful, and the technique is applied successfully in 90.2–95.9% of attempts^{9, 10, 14, 15}. Hence, it is very useful for detecting lesions in the ascending colon.

Conclusion

We have reported an asymptomatic case of colonic anisakiasis diagnosed and treated during colonoscopy with retroflexion in the ascending colon. Anisakiasis occasionally leads to penetration of the intestinal wall and produces an ectopic mass if no treatment is provided⁵. Patients must be examined closely during colonoscopy using retroflexion in the ascending colon with anisakiasis in mind if a history of eating raw seafood is elicited, as was the case in our patient.

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