

Images in Clinical Tropical Medicine

Adhesive Intestinal Obstruction Caused by Extragastrintestinal Anisakiasis

Yasuyuki Takamizawa* and Yoshifumi Kobayashi

Department of Surgery, Suwa Central Hospital, Nagano, Japan

A 44-year-old Japanese woman with no history of laparotomy presented with intermittent abdominal pain that had begun 10 hours earlier. Epigastric tenderness with no muscle guarding was observed. Abdominal contrast-enhanced computed tomography showed a dilated upper small intestine and a band near the stenosis (Figure 1). Internal hernia was diagnosed, and conservative treatment with analgesics was

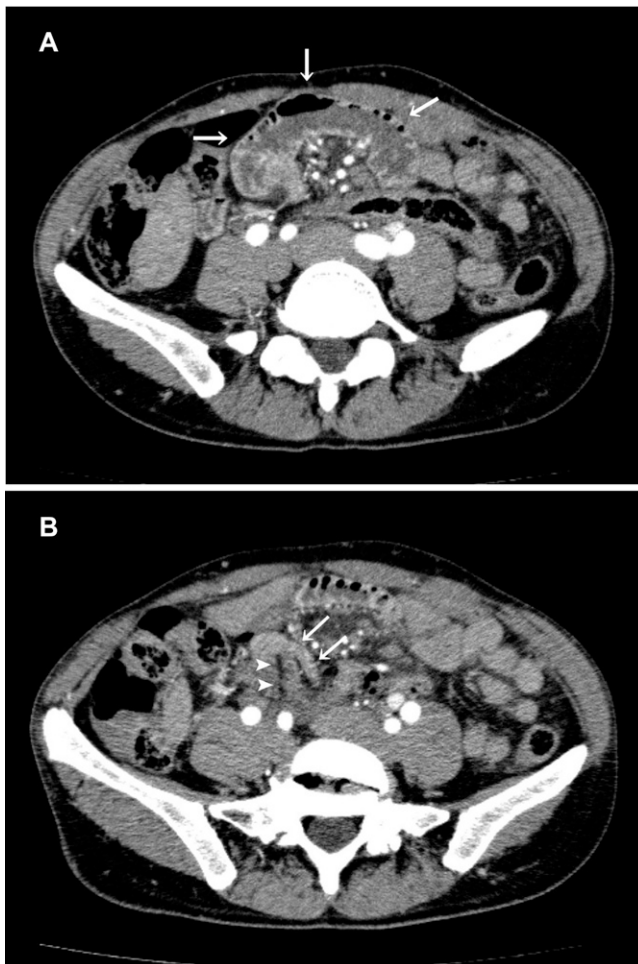


FIGURE 1. (A) Contrast-enhanced computed tomography scan of the abdomen showing a dilated upper intestine (arrows). (B) A band near the stenosis (arrowheads) and a collapsed intestine (arrows).

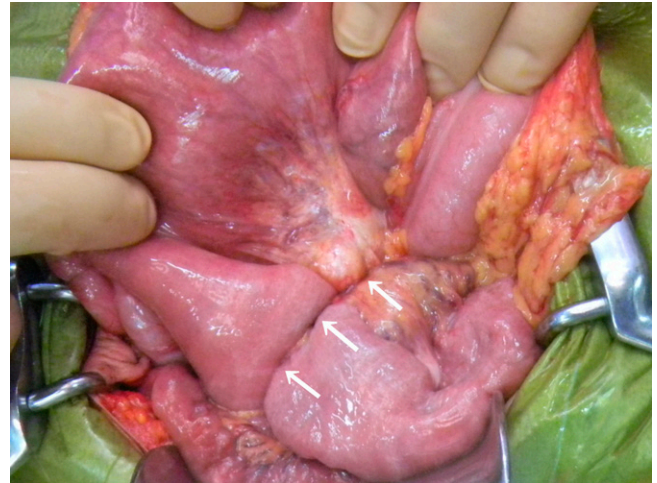


FIGURE 2. A cyclic structure (arrows) constricting the upper small intestine.

administered. However, abdominal pain persisted. Emergency laparoscopy performed 20 hours after onset revealed two bands. Band A was a cyclic structure constricting the upper small intestine (Figure 2). Band B protruded from the jejunum, was 10 cm distal to the ligament of Treitz, and adhered to the mesentery (Figure 3). Both bands, which were comprised of fibrous tissue, were surgically excised. Band B contained an abscess surrounded by granulation tissue and

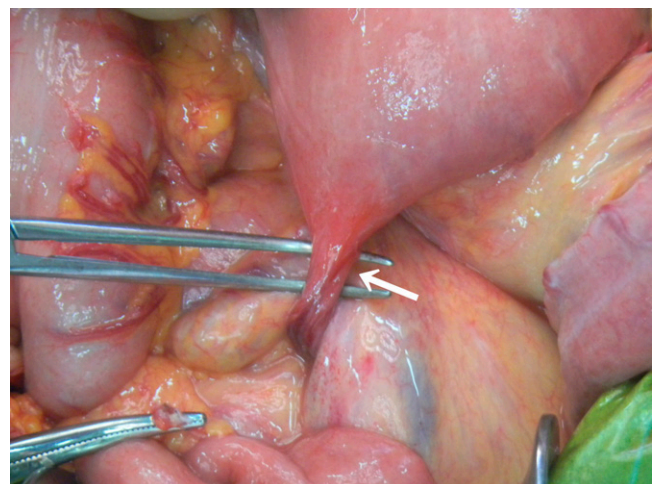


FIGURE 3. A band (arrows) protruded from the jejunum, was 10 cm distal to the ligament of Treitz, and adhered to the mesentery.

*Address correspondence to Yasuyuki Takamizawa, Department of Surgery, Suwa Central Hospital, 4300 Tamagawa, Chino-shi, Nagano-ken 391-8503, Japan. E-mail: yasu.mizawa@gmail.com

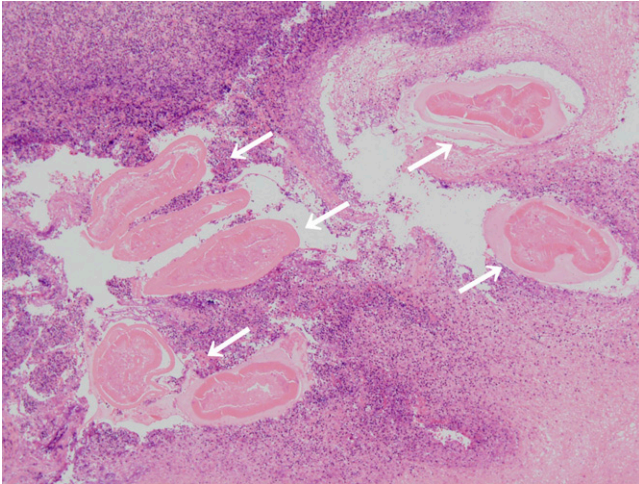


FIGURE 4. Histopathologic examination indicated an abscess surrounded by granulation tissue and a degenerated worm (arrows) inside (hematoxylin and eosin stain, $\times 40$).

a degenerated worm inside (Figure 4). Immunostaining revealed the worm to be *Anisakis simplex*. Thus, extragastrointestinal anisakiasis may have caused adhesive intestinal obstruction. Subsequently, the patient recovered completely.

Anisakiasis occurs after eating raw fish or cephalopods contaminated by larvae of the Anisakidae family. Most *Anisakis* spp. parasitize the gastrointestinal tract, usually the stomach.¹ Rarely, anisakiasis occurs ectopically outside the gastrointestinal tract while being asymptomatic and granulomatous.² Extragastrointestinal anisakiasis should be considered as a possible cause of adhesive intestinal obstruction.

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Authors' addresses: Yasuyuki Takamizawa and Yoshifumi Kobayashi, Department of Surgery, Suwa Central Hospital, Nagano, Japan, E-mails: yasu.mizawa@gmail.com and ykobayashi@suwachuo.jp.

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