Giardiasis is not uncommon in Taiwan

Han-Yu Chang, Jui-Ting Hu, Shih-Hung Huang, Sien-Sing Yang

Liver Unit, Cathay General Hospital, Taipei, Taiwan
Faculty of Medicine, Fu-Jen Catholic University College of Medicine, New Taipei, Taiwan
Department of Pathology, Cathay General Hospital, Taipei, Taiwan

Received 17 August 2013; received in revised form 27 August 2013; accepted 28 August 2013

Giardiasis is an important water- and food-borne infectious disease that causes sporadic diarrhea in travelers and daycare center attendees worldwide. We report a 33-year-old diabetic mother with giardiasis presenting as malnutrition and severe weight loss from 85 kg to 40 kg over 6 months, who had close contact with her mentally impaired son at a sanatorium. The duodenal biopsy confirmed the Giardia trophozoites among the villi and crypts (Fig. 1). The architecture of the duodenal mucosa was well preserved. Electron microscopy confirmed the presence of Giardia trophozoites in the duodenal villi. She responded to metronidazole therapy, as her symptoms improved and she regained weight to 50 kg in 24 weeks.

Most cases of giardiasis are asymptomatic. Chronic giardiasis may develop malaise, depression, flatulence, loose stools, malabsorption, and weight loss. The diagnosis of giardiasis requires the identification of Giardia cysts on three stool specimen examinations. Aspiration and biopsy of the duodenum and small intestine can be helpful. Stool immunoassays are more sensitive than conventional stool microscopy.

Giardiasis can be found in 2–5% of individuals in industrialized nations and up to 33% in developing countries. In urban and mountainous areas of Taiwan, fecal specimens from livestock and avian farms and water samples from small water systems, rivers, underground wells, and mountain springs were proven to contain Giardia cysts. In Nantou, eight of 209 schoolchildren had detectable Giardia duodenalis in their fecal samples. Therefore, Giardia infection is not uncommon in Taiwan.

Careful investigation of potential Giardia infection is important in patients with chronic diarrhea, malnutrition, and immunodeficiency status. Underground, spring, and river water should be filtered to reduce the risk of possible Giardia infection.
References


Figure 1 Scattered flagellated and sickle- or pear-shaped Giardia trophozoites in (A) high-power view (200 ×) and (B) electron microscopy (10,000 ×).