

Overview of Parasitic Infection-giardiasis

Veena Priyadarshini

Citation: Priyadarshini V, Overview of Parasitic Infection-giardiasis. J Exp Clin Microbiol 2021;5(4):1.

OPINION

Stomach cramps, bloating, nausea, and bouts of watery diarrhea are all symptoms of giardia infection. *Giardia* infection is caused by a minute parasite that can be found all over the world, particularly in locations where sanitation and water quality are poor. One of the most common causes of waterborne disease is *Giardia* infection (giardiasis). Backcountry streams and lakes, as well as public water supplies, swimming pools, whirlpool spas, and wells, all include parasites. Food and person-to-person contact can both spread *Giardia* infection. It can be found in the feces of both animals and humans. These parasites may survive outside of a host for lengthy periods of time and thrive in contaminated food, water, and soil. Consumption of these parasites by accident can result in illness. Drinking water contaminated with *Giardia lamblia* is the most prevalent way to get giardiasis. Swimming pools, spas, and bodies of water such as lakes can all contain contaminated water. Animal excrement, diapers, and agricultural runoff are all sources of contamination. The parasite is spread through the feces-oral pathway, which is often caused by ingesting contaminated water or food, or by person-to-person transmission.

Children in daycare settings, child-care professionals, institutionalized individuals, travelers in endemic areas, intake of contaminated or recreational water, immunodeficiency, cystic fibrosis are among the risk factors for infection. Between 50 and 75 percent of sick youngsters show no signs or symptoms. Other youngsters get diarrhea that is either acute or chronic. When compared to microscopic examination of stool specimens for the detection of *Giardia* trophozoites or cysts, direct fluorescent antibody tests that detect intact organisms, enzyme immunoassays that detect soluble antigens, and multiplex real-time polymerase chain reaction assays that detect specific parasite genes in stool samples have improved sensitivity and specificity. The parasite is spread through the feces-oral pathway, which is often caused by ingesting contaminated water or food, or by person-to-person transmission.

Different types of *Giardia* exist, mammals can be infected with *G. lamblia*-type organisms, and secretory IgA is vital for host protection. Even though water remains the most common means of *Giardia* transmission, there has been an increase in the number of person-to-person infections, particularly among children in day care, as well as food-borne cases. The ability to diagnose *Giardia* in the feces has increased thanks to new antigen detection techniques, making duodenal sampling unnecessary. Because of its efficacy, tolerability, and availability, metronidazole has become the treatment of choice for most instances of giardiasis. Paromomycin, a non-absorbable aminoglycoside, may be tried initially. The asymptomatic cyst-passing stage, the chronic or subacute stage mimicking gallbladder or ulcer disease, and the transient or rarer, persistent acute stage with steatorrhea and significant weight loss are all possible clinical presentations. The asymptomatic cyst-passing stage, the chronic or subacute stage mimicking gallbladder or ulcer disease, and the transient or rarer, persistent acute stage with steatorrhea and significant weight loss are all possible clinical presentations. Giardiasis can result in weight loss and dehydration because of diarrhea. Some people may develop lactose intolerance because of the virus.

The asymptomatic cyst-passing stage, the chronic or subacute stage mimicking gallbladder or ulcer disease, and the transient or rarer, persistent acute stage with steatorrhea and significant weight loss are all possible clinical presentations. Some people may develop lactose intolerance because of the virus. Children with giardiasis under the age of five are at risk of malnutrition, which can affect their physical and mental development. In developed countries, giardia infection is nearly seldom fatal. There are currently no human vaccinations available, however numerous vaccine candidates are being developed. Recombinant proteins, DNA vaccines, variant-specific surface proteins (VSP), cyst wall proteins (CWP), giadins, and enzymes are among the targets. *Giardia* Vax, a vaccine derived from *G. lamblia* whole trophozoite lysate, is currently the only commercially available vaccine. It's a vaccine for dogs and cats that's only for veterinarian use.

School of Life Sciences, B.S. Abdur Rahaman Crescent Institute of Science and Technology, Chennai, Tamil Nadu, India

Correspondence: Veena Priyadarshini, School of Life Sciences, B.S. Abdur Rahaman Crescent Institute of Science and Technology, Chennai, Tamil Nadu, India, Tel: (+91) 9500084421, E-mail: veenapriya31@gmail.com

Received: December 08, 2021, Accepted: December 22, 2021, Published: December 29, 2021



This open-access article is distributed under the terms of the Creative Commons Attribution Non-Commercial License (CC BY-NC) (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits reuse, distribution and reproduction of the article, provided that the original work is properly cited and the reuse is restricted to noncommercial purposes. For commercial reuse, contact reprints@pulsus.com