

Giardiasis

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Introduction

- > Giardiasis is a symptomatic infection of the small intestine caused by the microscopic parasite *Giardia lamblia* (also known as *Giardia intestinalis*)
- > The *Giardia* trophozoites (disease-causing forms) damage the epithelial absorptive surface and upper intestine. This affects the absorption of glucose, sodium, and water, and reduces disaccharidase activity, which can lead to diarrhoea and malnutrition.
- > The trophozoites do not invade surrounding tissues or enter the bloodstream, but the immune response results in an increased inflammation of the intestine

Clinical symptoms

Acute stage (1 to 3 weeks after the infection)

- > Usually lasts 3 to 4 days, but may be prolonged to several months leading to significant malabsorption, weight loss, and debility

Acute symptoms

- > Sudden onset of explosive, watery, foul diarrhoea
- > Abdominal distension
- > Flatulence
- > Nausea
- > Anorexia

Also

- > Malaise
- > Chills
- > Low-grade fever
- > Variable cramps in the abdomen

Chronic stage

- > May persist for years, disappear spontaneously or women may become asymptomatic cyst passers
- > Intermittent or persistent mild-to moderate symptoms e.g. episodic, loose, foul stools associated with increased flatus and abdominal distension
- > Sulfuric belching and substernal burning are common and malabsorption may occur

Route of transmission

- > Person to person spread occurs by hand to oral transfer of cysts from the faeces of an infected person
- > Spread may also occur from animal or human faecally contaminated recreational water, drinking water or food

Infection precautions

- > Giardiasis is communicable for the entire period of cyst excretion
- > Standard precautions

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Diagnosis

- > Faecal specimen to identify cysts or trophozoites
- > Duodenal aspirate

Treatment

Preventative measures

- > Educate women about hand washing before meals, after toilet use and changing nappies
- > Avoid drinking from contaminated water sources

Drug treatment

- > Metronidazole 400 mg three times a day over seven days

References

1. Kreutner AK, Del Bene VE, Amstey MS. Giardiasis in pregnancy. *Am J Obstet Gynecol* 1981; 140:895-901.
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3. Buret A. Mechanisms of epithelial dysfunction in giardiasis. *Gut* 2007;56:316-7.
4. Granados CE, Reveiz L, Cuervo LG, Uribe LG, Criollo CP. Drugs for treating giardiasis. *Cochrane Database of Systematic Reviews* 2009, Issue 2. Art. No.: CD007787. DOI: 10.1002/14651858.CD007787. Available from URL: http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD007787/pdf_fs.html.

Useful web site:

South Australian Department of Health. You've got what – Giardiasis. Available from URL: <http://www.dh.sa.gov.au/pehs/Youve-got-what/ygw-giardiasis.pdf>

Version control and change history

PDS reference: OCE use only

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1.0	19 May 04	25 Jan 10	Original version
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