A parasite is an organism that obtains food and shelter from another organism and derives all benefits from this association. The parasite is termed **obligate** when it can live only in a host; it is classified as **facultative** when it can live both in a host as well as in free form. Parasites that live inside the body are termed **endoparasites** whereas those that exist on the body surface are called **ecto-parasites**. Parasites that cause harm to the host are **pathogenic** parasites while those that benefit from the host without causing it any harm are known as **commensals**.

The organism that harbors the parasite and suffers a loss caused by the parasite is a **host**. The host in which the parasite lives its adult and sexual stage is the **definitive** host whereas the host in which a parasite lives as the larval and asexual stage is the **intermediate** host. Other hosts that harbor the parasite and thus ensure continuity of the parasite's life cycle and act as additional sources of human infection are known as **reservoir** hosts. An organism (usually an insect) that is responsible for transmitting the parasitic infection is known as the **vector**.

**INTESTINAL AND UROGENITAL PROTOZOA**

Intestinal and luminal protozoa significant to human health include

* *Entamoeba histolytica* (Amebae)
* *Balantidium coli* (Ciliates)
* *Giardia lamblia* and *Trichomonas vaginalis* (Flagellates)
* *Cryptosporidium parvum* and *Isospora belli* (Sporozoa)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Summary** | | | | |
| **Organism** | **Transmission** | **Symptoms** | **Diagnosis** | **Treatment** |
| Entameba histolytica | Oro-fecal | Dysentery with blood and necrotic tissue.  Chronic: abscesses | Stool: cysts with 1-4 nuclei and/or trophs.  Trophs in aspirate. | GI: Iodoquinol or  Metronidazole  Abscess: Metronidazole |
| Giardia lamblia | Oro-fecal | Fowl-smelling, bulky diarrhea; blood or necrotic tissue rare. | Stool: typical old man giardia troph and/or cyst. | Iodoquinol or Metronidazole. |
| Balantidium coli | Oro-fecal; zoonotic | Dysentery with blood and necrotic tissue but no abscesses. | Stool: ciliated trophs and/or cysts. | Iodoquinol or Metronidazole. |
| Cryptosporidium parvum | Oro-fecal | Diarrhea | Ooocysts in stool | Paromycin (investigational) |
| Isospora belli | Oro-fecal | Giardiasis-like | Ooocysts in stool | Sulpha drugs |
| Trichomonas vaginalis | Sexual | Vaginitis; occasional urethritis/prostatitis. | Flagellate in vaginal (or urethral) smear. | Mebendazole; vingar douche; steroids |