AMEBIASIS

WHAT IS AMEBIASIS

Amebiasis is an infection caused by the protozoan organism *Entamoeba histolytica (E. histolytica)*. The organism initially infects the gastro-intestinal tract and is the cause of *Amebic Dysentery*. It can also invade other organs. Infection is present worldwide but is more common in the tropics, in countries with poor sanitation (including India). It is estimated that about 12% of the world population is infected with E. histolytica (greater than 500 million people!).

HOW IS IT SPREAD

Infected persons excrete cysts of the ameba in their stool. The cysts are very resistant and can survive the amounts of chlorine normally used to chlorinate drinking water. Boiling, however, kills them. Fecal contamination of food and drink spreads the disease. Infection is waterborne and contamination of drinking water supplies with untreated sewage can spread the organism. The use of human feces as fertilizer, indiscriminate public defecation, the presence of flies, and lack of proper hygiene amongst food handlers are also culprits.

WHAT ARE THE CLINICAL MANIFESTATIONS OF AMEBIASIS

The ingested cysts of *E. histolytica* hatch in the small intestine and the organisms then colonize the large bowel. Most infected persons are asymptomatic. In a small percentage of affected people, the amebas invade the mucous membranes and cause multiple ulcers in the large intestine.

Symptoms, when they occur, are gradual in onset. There may be colicky abdominal pain and diarrhea (6-8 bowel movements a day) accompanied by painful spasm of the rectal muscles. The stools are blood stained and have a lot of mucus. Fever is usually absent. Some people have acute amebic dysentery – these attacks of pain and bloody diarrhea last few days to several weeks and recur in the untreated patient.

WHAT ARE THE COMPLICATIONS OF AMEBIASIS

Even though more than 80% of persons infected are asymptomatic and only pass cysts in the stool, Amebiasis is a serious disease and is third largest parasitic cause of death around the world.

Attacks of amebic dysentery may be very severe, accompanied by fever, chills and very bad diarrhea. This can result in dehydration and electrolyte disturbances that may be fatal (this is common to severe diarrhea due to any cause).

Small children are prone to get severe inflammation of the large intestine (amebic colitis) – the illness tends to be rapidly progressive and can be fatal.

The amebic ulcers can perforate through the wall of the intestine and cause generalized spread of the infection throughout the abdominal cavity (peritonitis).

Amebas can invade tissues beyond the intestine. The commonest site is the liver, causing an Amebic Liver Abscess – this is a cavity inside the liver caused by destruction of normal liver tissue by the amebas and is filled with pus. There will be fever and abdominal pain. The abscess can rupture spontaneously.

Amebic abscesses can occur in other organs, such as the lung and even the brain.

HOW IS AMEBIASIS TREATED

When your doctor suspects Amebiasis, he will ask for repeated stool examinations to confirm presence of the organism. If an abscess is suspected, either in the liver or elsewhere, appropriate radiological tests will be performed (such as an ultrasound scan or a CT scan).

Unless there are complications, the patient can be treated at home. Several good anti-amebic drugs are available, including *Diloxanide Furoate, Metronidazole and Tinidazole*. It is important to complete the full course prescribed by your physician. Complicated patients will have to be admitted to hospital and treated with intravenous drugs.

WHAT IS THE PROGNOSIS

The prognosis is generally good and a full cure is possible.

CAN AMEBIASIS BE PREVENTED

There is no vaccine against the disease.

Prevention is by ensuring good personal and public hygiene. Children should be taught the importance of washing hands with soap and water after using the toilet and before eating. Avoid eating and drinking outside when you cannot be sure that the items are free of contamination. Ensure clean drinking water supplies at home (either by boiling or filtration or by other methods).