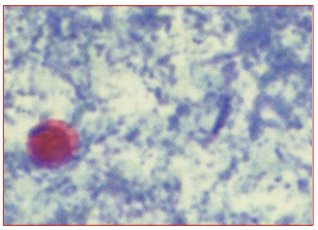

Cryptosporidosis

tmb tropical medical bureau — TRAVEL IN HEALTH

General Information

Cryptosporidosis is a parasitic disease of the gastrointestinal tract which has only been recognised as a disease of humans since 1976. There have been large outbreaks of the disease in many parts of the world including over 400,000 people in Milwaukee (USA) in 1993 and many hundreds of cases occur in western Europe including ones in England and also some in Ireland.

Disease Transmission

The disease is transmitted through the ingestion of contaminated food or water. This contamination may have occurred from contact with the infected stool of either an animal or from another human. Frequently this is by drinking contaminated water (even brushing your teeth in infected tap water may be sufficient). Eating undercooked or raw food (typically cold vegetables etc.) may also be a source of infection.

Risk Groups

In general those who are at particular risk include child care workers (especially those involved in changing nappies etc.), sewage workers and travellers to developing countries who do not exercise special care regarding food and water hygiene. Frequently a group of individuals may become infected at the same time from a common source (e.g. from their drinking water or a common vegetable dish).

Disease Symptoms

In humans the first evidence that there may be an infection may not occur for up to two weeks after exposure. Many patients will experience an abdominal complaint within 48 hours. The spectrum of the disease in humans can be divided into three levels; mild, moderate and severe.

Mild;

In many patients the disease may not be evident to any great extent and it is then only diagnosed on careful examination of the stool specimen. These patients may spread the disease to others despite the fact that they are not suffering any particular ill effects themselves.

Moderate;

In others the disease may present with waves of tiredness, lethargy, headaches, loose bowel motions, nausea and vomiting. These patients may also have a low grade fever and notice weight loss over a period of time. Frequently the signs and symptoms of the disease in these patients lessen with the passage of time (often a few weeks) and then the patients own defences work to eradicate the disease from the body.

Severe;

Under most circumstances the disease process does not develop into the severe stage. Nevertheless in patients with an underlying deficiency of their immune system (following transplantation, those with AIDS or on Steroids etc.) a very severe state can occur. These patients can present with profuse diarrhoea and significant crampy abdominal pain. Fever and headache may also be prominent features of the disease and even death can follow in those severely affected.

Diagnosing the Disease

The diagnosis of this disease is more complicated than the normal routine examination of the stool sample which is carried out for the diagnosis of standard ova and parasites. Special stains are required and the possibility of this condition must be considered by the doctor to ensure that the laboratory are informed of this possible diagnosis.

Drug Treatment

At this point in time there is no clear effective treatment to ensure eradication of the parasite from the body. Patients treated with Metronidazole (Flagyl) frequently improve clinically though the parasite may still be present in their stool sample.

Other Treatment

Patients with nausea and vomiting may be treated with medication to lessen these troublesome symptoms. Those with diarrhoea may require therapy with Oral Rehydration Salts (ORS) and even intravenous therapy in the severe cases. ORS has the advantage of easily restoring the loss of essential salts which the patient will suffer through this significant diarrhoea. Patients with headaches, or a fever due to the disease, may also require relief of their symptoms with a paracetamol type drug providing there are no clear contraindications.

Prevention

- General food and water hygiene rules should be maintained at all times.
- Personal hygiene after using the toilet and especially before preparing food
- Avoid raw or undercooked foods, especially in developing countries
- In general, avoid tap water for drinking or brushing your teeth

Other Information

This leaflet is provided by the Health Education Department of the Tropical Medical Bureau. Further information is available at;

- *http://www.ndsc.ie/Publications/Cryptosporidiosis/*
- *http://www.cdc.gov/ncidod/dpd/parasites/cryptosporidiosis/factsht_cryptosporidiosis.htm*

Please remember that the information this leaflet contains is of a very general nature and patients should always seek detailed medical advice about their personal health.

National Travel Vaccine Appointment Tel 1-850-48 76 74 **Web Address: www.tmb.ie**

This leaflet has been prepared using information supplied from W.H.O. Center for Disease Control (US) and other International sources.

crypto/TMB/updated24May2005

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