Strongyloides Stercoralis

Strongyloides stercoralis is a parasitic nematode, which infects humans by penetrating their skin, as its larvae are found in soil. Once infected, humans can develop two types of disease, uncomplicated disease and disseminated disease. The standard treatment is ivermectin, but albendazole is also effective in treating this parasite.



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Pathophysiology

Nematode (Roundworm)
Knee-toad with Roundworms
Strongyloides stercoralis is a nematode, or roundworm.

Larvae in Soil Penetrate Skin
Larvae in Soil Penetrating Skin
These parasites are adapted to living in the top 15cm of soil. Humans are infected when the larvae of Strongyloides stercoralis burrow through their skin, typically on their bare feet. Once in the skin, the larvae burrow into the bloodstream. Here they mature and infiltrate various organs.

Uncomplicated Disease

GI Distress
GI with Flare-gun
Most commonly, this parasite affects the GI system, leading to intestinal infection. Many times it can be asymptomatic for long periods. On the other end of the spectrum, symptoms such as vomiting, diarrhea, and epigastric pain may be seen.

Loffler's Syndrome
Loafers
With uncomplicated Strongyloides stercoralis, patients can develop Loffler's syndrome, pulmonary eosinophilia that occurs from parasitic invasion. Clinically, this can manifest as eosinophilic pneumonia.

Dermatitis
Dermatologist Examining Rash
Patients can also develop urticarial rashes at the site of larval penetration and other classic areas. This dermatitis is seen in the feet, buttocks, and waist.

Disseminated Disease

Immunosuppressed
Moon Suppressed
Disseminated strongyloidiasis occurs when those who are infected become immunosuppressed. Disseminated disease can then cause septicemia, meningitis, and possibly death.

Treatment

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Ivermectin

Ivory-medicine-man

The treatment of choice for uncomplicated disease is ivermectin, which only kills adult worms and not larvae. Thus, redosing may be necessary to eradicate infection.

Albendazole

Abe-Bond

Albendazole is another effective drug in treating strongyloidiasis and may be used when ivermectin fails or when disseminated disease occurs.

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