



The Storm of *Strongyloides stercoralis* in Stool

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Abstract:

A 35-year-old male presented with complaints of intermittent diarrhea since last three months. He was a known HIV positive case for last four years. Examination of the normal saline mount of stool sample revealed multiple motile rhabditiform larvae of *Strongyloides stercoralis* with a count of >100 per low power field. They were identified by their short buccal capsule and the prominent genital primordium. The patient was successfully treated with ivermectin. We report this case to demonstrate the unusually high load of larvae in the stool of this HIV positive patient.

Key words: Diarrhea, Feces, HIV Infection, Ivermectin, *Strongyloides stercoralis*.

Introduction

Strongyloides stercoralis has been globally neglected for long but is gaining importance in recent times [1]. The concern is more alarming in the immunosuppressed individuals because of the high parasitic load and potentially fatal manifestations observed in these patients.

tender with no obvious organomegaly. Routine laboratory investigations revealed mild anemia (10.4 gm%) along with eosinophilia (8%). His CD4 count estimated by the FACS count system was 16/μl. The stool sample of the patient was sent for complete parasitological work up.

Case Report

A 35-year-old male patient presented with complaints of intermittent watery diarrhea (3-4 times/day) for last three months. The patient was a resident of a rural area in Bihar (a state in Northern India). He was diagnosed with HIV four years back. On examination, his abdomen was soft and non-

Stool was watery with no visible blood, mucus, worm or proglottids. Microscopic examination of the normal saline mount of stool sample revealed an alarmingly high number of motile larvae with a count of >100 per low power field [Fig.1]. They were identified as rhabditiform larvae of *Strongyloides stercoralis* by their short buccal capsule and the prominent genital primordium. The average length

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of larvae on micrometry was about 218 μ (range 203-242 μ). The coccidian parasites were negative on modified acid fast stain. No other ova, cyst, or trophozoite were detected in stool. The patient was successfully treated with ivermectin (200 μ g/kg/day) for 2 days.

Discussion

Strongyloides stercoralis, a soil transmitted helminth, is mostly prevalent in the tropical parts of the world [2]. Man is the only host required for the completion of life cycle of this nematode. The host is infected by the penetration of skin by filariform larvae. After the parasite migrates through the lungs, it matures into an adult female worm in the small intestine. The female worm produces eggs by parthenogenesis. The eggs hatch and produce rhabditiform larvae. The rhabditiform larva is passed into the stool where it matures into the infective filariform larva. The rhabditiform larva may sometimes change into filariform larvae in the intestine itself and penetrate the walls causing autoinfection and therefore, leading to rapid multiplication in the number of larvae [3].

Strongyloidiasis is difficult to diagnose clinically as it presents with nonspecific signs and symptoms [4]. The methods for laboratory diagnosis include microscopic examination of the faeces and serology [5]. Ivermectin is the drug of choice for treatment of strongyloidiasis [5]. The estimated prevalence of strongyloidiasis in India has been found to be 6.6% and 11.2% in community and hospital based surveys respectively [1]. Several studies have shown an increase in incidence of infection with *Strongyloides stercoralis* in HIV infected population but only a handful of cases with severe manifestations have been noted in these individuals [6,7]. This is largely because, there is loss of Th1 activity in HIV infection but Th2 activity is well preserved which provides protection against development of severe manifestations [8].

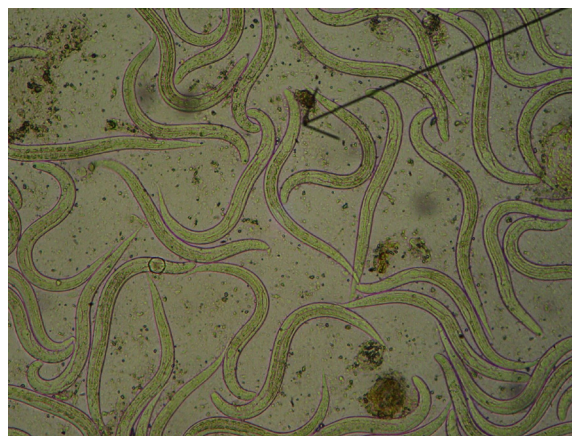


Fig.1: Rhabditiform larvae of *S. stercoralis*.

Conclusion

We report this case to demonstrate the unusually high load of larvae in the stool of this HIV positive patient. Parasitological work up (especially for larvae of *Strongyloides stercoralis*) should therefore, be regularly conducted in immunosuppressed patients presenting with diarrhoea.

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