Strongyloides stercoralis Infection: A Case Series from a Tertiary Care Center in India

Sir,

Strongyloidiasis remains a neglected tropical disease as reflected by the paucity of published literature from India.[1,2] We conducted a retrospective, descriptive study on thirty patients, who were diagnosed with strongyloidiasis in our hospital. The patients were diagnosed using wet mount microscopy. The majority of the patients diagnosed with strongyloidiasis were in the age group of 31–40 years (10/30, 33%). The proportion of diseased males (24/30, 80%) was significantly higher than the females (6/30, 20%). Eighteen of the thirty patients had other coexisting conditions [Table 1]. HIV infection was most commonly associated with strongyloidiasis in our study, which was in concordance with another study from our country.[3] Increasing number of cases with strongyloidiasis reported in transplant settings has encouraged recommendations for a pretransplant screening.[4] The mean number of larvae detected from the samples of immunosuppressed versus immunocompetent patients was 21.7/cover slip area and 2.9/cover slip area, respectively. There were five patients with severe manifestations and increased load of rhabditiform larvae in stool. Four of these five patients with severe manifestations had HIV infection while one was a liver transplant recipient. A definite diagnosis of hyperinfection syndrome was possible in only one of these patients in whom

Table 1: Strongyloidiasis Cases in the Last One and Half Decade

Age	Gender	Coexisting illness	Larvae/cover slip area	Concomitant parasitic infections	Treatment
35	Female	HIV infection	5	Nil	Oral ivermectin
35	Male	HIV infection	28*	Nil	Oral ivermectin
35	Male	Post liver transplant	29*	Nil	Oral albendazole
40	Male	HIV infection	1	Oocysts of *C. belli*	Oral ivermectin
24	Female	FBD	2	Nil	Oral ivermectin
44	Female	IBD on steroids	6	Nil	Oral ivermectin
12	Female	Chronic heart disease	2	Nil	Oral ivermectin
35	Male	Nodular lymphoid hyperplasia	1	Nil	Oral ivermectin
35	Male	FBD	1	Nil	Oral ivermectin
7	Male	Chronic diarrhea	6	Nil	Oral albendazole
10	Male	Chronic diarrhea	1	Cysts of *G. intestinalis*	Oral ivermectin
45	Male	Chronic diarrhea	9	Nil	Oral ivermectin
16	Male	Chronic diarrhea	2	Nil	Oral ivermectin
40	Male	IBD	1	Nil	Oral ivermectin
16	Male	HIV infection	32*	Eggs of *A. lumbricoides* and hookworm, cysts of *E. coli*	Oral ivermectin
5	Male	Chronic diarrhea	2	Cysts of *E. coli* and *Endolimax* nana	Oral albendazole
40	Male	HIV infection	2	Oocysts of *Cryptosporidium* spp	Oral ivermectin
8	Male	Chronic diarrhea	5	Nil	Oral albendazole
20	Male	Chronic diarrhea	1	Nil	Oral ivermectin
7	Male	Chronic diarrhoea	6	Nil	Oral albendazole
2	Male	HIV infection	1	Oocysts of *C. belli*	Oral albendazole
32	Male	HIV infection	200*	Oocysts of *Cryptosporidium* spp	Oral ivermectin
60	Male	HIV infection	5	Nil	Oral ivermectin
8	Male	HIV infection	2	Nil	Oral ivermectin
40	Male	Chronic diarrhea	3	Nil	Oral ivermectin
44	Female	Postrenal transplant	2	Nil	Oral albendazole
55	Male	IBD on steroids	2	Nil	Oral ivermectin
23	Male	Postrenal transplant	4	Nil	Oral albendazole
43	Female	HIV infection	7**	Nil	Nasogastric ivermectin
19	Male	Chronic abdominal pain	1	Cysts of *Endolimax* nana, *E. coli*, *I. buetschlii*, *G. intestinalis* Eggs of *A. lumbricoides*, hookworm, *T. trichiura*	Oral albendazole

*Severe cases with exaggerated symptoms and increased parasitic load, **Diagnosed as hyperinfection. FBD: Functional bowel disease, IBD: Inflammatory bowel disease, *A. lumbricoides*: *Ascaris lumbricoides*, *E. coli*: *Entamoeba coli*, *C. belli*: *Cystoisospora belli*, *I. buetschlii*: *Iodamoeba butschlii*, *T. trichiura*: *Trichuris trichiura*, *G. intestinalis*: *Giardia intestinalis*

filariform larvae were demonstrated in the tracheal aspirate. The global increase in the number of immunosuppressed individuals coupled with the high parasitic load and severe manifestations noted in these patients suggests that there is a definite need for heightening suspicion, diagnosing early, and promptly treating these patients.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Nitin Gupta, Aashish Choudhary[1], Bijay Ranjan Mirdha[1], Pratibha Kale[1], Kamla Kant[1], Arnab Ghosh[1], Nishant Verma[1]

Department of Medicine and Microbiology, Division of Infectious Disease, All India Institute of Medical Sciences, [1]Department of Microbiology, All India Institute of Medical Sciences, New Delhi, India

Address for correspondence: Dr. Bijay Ranjan Mirdha, Room No 2078, Department of Microbiology, 2nd Floor, Teaching Block, All India Institute of Medical Sciences, Ansari Nagar, New Delhi - 110 029, India.
E-mail: mirdhabr2078@gmail.com

References

1. Khuroo MS. Hyperinfection strongyloidiasis in renal transplant recipients. BMJ Case Rep 2014;2014. pii: Bcr2014205068.
2. Tiwari S, Rautaraya B, Tripathy KP. Hyperinfection of *Strongyloides stercoralis* in an immunocompetent patient. Trop Parasitol 2012;2:135-7.
3. Chordia P, Christopher S, Abraham OC, Muliyil J, Kang G, Ajjampur Ss. Risk factors for acquiring *Strongyloides stercoralis* infection among patients attending a tertiary hospital in South India. Indian J Med Microbiol 2011;29:147-51.
4. Avery RK. Recipient screening prior to solid-organ transplantation. Clin Infect Dis 2002;35:1513-9.

Access this article online

Quick Response Code:

Website: www.jgid.org

DOI: 10.4103/0974-777X.204694

How to cite this article: Gupta N, Choudhary A, Mirdha BR, Kale P, Kant K, Ghosh A, *et al*. *Strongyloides stercoralis* infection: A case series from a tertiary care center in India. J Global Infect Dis 2017;9:86-7.