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REVIEW ARTICLE

SEVERE FORM OF ILEOCOLONIC STRNGYLOIDIASIS IN AN IMMUNE COMPETENT INDIVIDUAL -A RARE CASE REPORT

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ABSTRACT

Most of the cases with gastrointestinal Strongyloides infection are quite asymptomatic. Whereas mild symptoms isusually bearable, not specific to the particular to G. I. tract. Some of the patients have abdominal pain, bloating, heartburn, intermittent episodes of diarrhea and constipation, a dry cough, and skin rashes except immune compromised individual they have severe form of life threatening infection.We are reporting a case of immune competent person with febrile illness and severe G. I. infection with Strongyloides.

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INTRODUCTION

Strongyloidiasis is commonly a clinically unapparent, can survive in the G. I. tract for long period but immunocompromised subjects can develop fatal disease. A review of literature had been carried out in the past on hyperinfection syndrome (HS) and disseminated strongyloidiasis (DS), in order to describe the most challenging aspects of severe strongyloidiasis. Here the scenario is quite different.

Case presentation

Mr P K, a 36 year oldmale with no comorbidities presented with complain of multiple episodes of loose stools since a week and persistently high TLC levels. At presentation, he was dehydrated and Physical examination was unremarkable except dehydration . CBC showed very high TLC(46,000 with 63% eosinophil) with eosinophilia and high serum lgE levels and AEC levels(21,070). Colonoscopy showed extensive transparent threadworm like worms in colon including ileum examined (they were smaller than roundworm and larger than pinworm but unlike pin worms what we see in the colon everyday), and they had a morphologically similar appearance likestrongyloidosis(figure-1)and biopsy s/o Eosinophilic colitis but no e/o strongyloid ova.. He was managed with IV fluids, IV antibiotics(pipercillin and tazobacter) and deworming with only ivermectin and other supportive management. He gradually improvedafter administration of ivermectin which is the treatment of choice in this condition.TLC counts improved and repeat sigmoidoscopy showed no e/o worms, punctate marking over colonic mucosa was disappeared (Figure-2).

DISCUSSION

Steroids other immune suppressants representthe main trigger predisposing toStrongyloides gastrointestinal infection. However, sometimes steroids were empirically prescribed to treat signs and symptoms caused by unsuspected/unrecognized strongyloidiasis. Diagnosis was obtained by microscopy examination in 100% cases, while serology was done in a few cases (6.5%). Only in 3/29 cases of solid organ/bone marrow transplantation there is mention of pre-transplant serological screening. But this case was a patient with immune competent without comorbidities who had severe form of strongyloidosis.

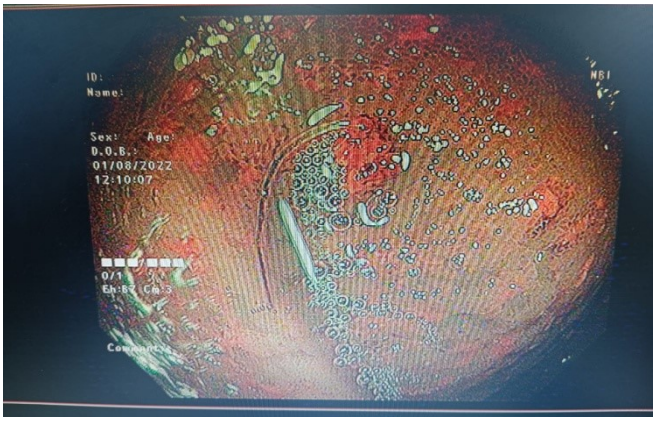

Figure 1. Colonic mucosa studded withworms and ulcer

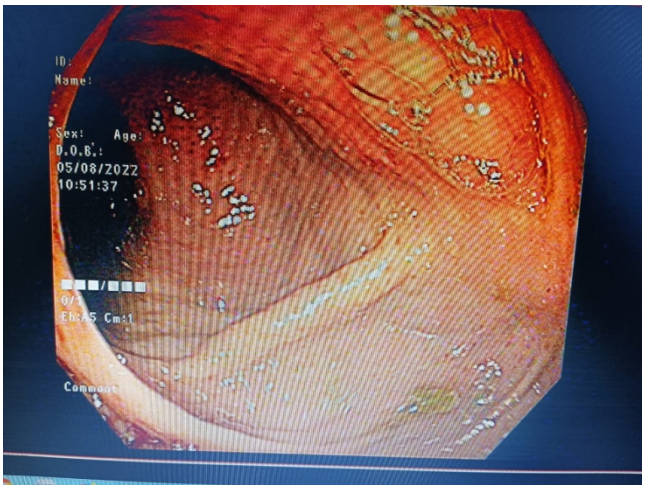

Figure 2. Colonic mucosa after treatment

CONCLUSION

Note is madethat such type of uncommon worm infestation in an immune competent which may be unnoticed without performing pan endoscopy. When we do not suspect such scenario , patients only receive iv antibiotics and other supportive treatment which is ineffective in this condition. As he had diarrhoeal episodefor which colonoscopy was carried out for him which concluded his underlying problems.

Vaccine against S. Stercoralis: A vaccine against S. stercoralis would be helpful in controlling the burden of disease, especially. Recently, Abraham et al. they have shown that the Ss-IR antigen (S. stercoralis immune reactive) from S. stercoralis is highly antigenic in humans. In addition, mice immunized with the Ss-IR antigen presented an 80 % decrease in the survival of larval parasites during the challenge infection

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Abbreviation

CBC-Complete blood count; TLC-Total leucocyte count ;HS-Hyper infection syndrome ;DS-Disseminated strongyloidiasis

REFERENCES

1.. Cappello M. 2004. Global health impact of soil-transmitted nematodes. Pediatr Infect Dis J.23:663–4.
2. Brooker S, Clements AC, Bundy DA. 2006. Global epidemiology, ecology and control of soil-transmitted helminth infections. Adv Parasitol.62:221–61.
3. Olsen A, van Lieshout L, Marti H, Polderman T, Polman K, Steinmann P, et al. Strongyloidiasis–the most neglected of the neglected tropical diseases? Trans R Soc Trop Med Hyg. 2009;103:967–72.
4. Genta RM. Global prevalence of strongyloidiasis: critical review with epidemiologic insights into the prevention of disseminated disease. Rev Infect Dis. 1989;11:755–67.
5. Schär F, Trostdorf U, Giardina F, Khieu V, Muth S, Marti H, et al. Strongyloidesstercoralis: Global Distribution and Risk Factors. PLoSNegl Trop Dis. 2013;7:e2288. This report outlines the global distribution of S. stercoralis. It is probably one of the most complete and evidence-based epidemiological reports in the literature. The authors described the lack of data in multiple areas and they highlight the need for more surveillance in developing countries.
6. Strunz EC, Addiss DG, Stocks ME, Ogden S, Utzinger J, Freeman MC. Water, sanitation, hygiene, and soil-transmitted helminth infection: a systematic review and meta-analysis. PLoS Med. 2014;11:e1001620.
7. Bailey MS, Thomas R, Green AD, Bailey JW, Beeching NJ. Helminth infections in British troops following an operation in Sierra Leone. Trans R Soc Trop Med Hyg. 2006;100:842–6.
8. McCarthy AE, Weld LH, Barnett ED, So H, Coyle C, Greenaway C, et al. Spectrum of illness in international migrants seen at GeoSentinel clinics in 1997-2009, part 2: migrants resettled internationally and evaluated for specific health concerns. Clin Infect Dis. 2013;56:925–33.
9. de Silva S, Saykao P, Kelly H, MacIntyre CR, Ryan N, Leydon J, et al. Chronic Strongyloidesstercoralis infection in Laotian immigrants and refugees 7-20 years after resettlement in Australia. Epidemiol Infect. 2002;128:439–44.
10. Chokkalingam Mani B, Mathur M, Clauss H, Alvarez R, Hamad E, Toyoda Y, et al. Strongyloidesstercoralis and Organ Transplantation. Case Rep Transplant. 2013;2013:549038.
11. Greaves D, Coggle S, Pollard C, Aliyu SH, Moore EM. Strongyloidesstercoralis infection. BMJ. 2013;347:f4610.
12. Rosenberg HF, Dyer KD, Foster PS. Eosinophils: changing perspectives in health and disease. Nat Rev Immunol. 2013;13:9–22.
13.•• Galioto AM, Hess JA, Nolan TJ, Schad GA, Lee JJ, Abraham D. Role of eosinophils and neutrophils in innate and adaptive protective immunity to larval strongyloidesstercoralis in mice. Infect Immun. 2006;74:5730–8. This paper summarizes the complex immunological mechanism during S. stercoralis infection.
14. Bonne-Année S, Kerepesi LA, Hess JA, O'Connell AE, Lok JB, Nolan TJ, et al. Human and mouse macrophages collaborate with neutrophils to kill larval Strongyloidesstercoralis. Infect Immun. 2013;81:3346–55.
15. Padigel UM, Lee JJ, Nolan TJ, Schad GA, Abraham D. Eosinophils can function as antigen-presenting cells to induce primary and secondary immune responses to Strongyloi desstercoralis. Infect Immun. 2006;74:3232–8.
16. Padigel UM, Hess JA, Lee JJ, Lok JB, Nolan TJ, Schad GA, et al. Eosinophils act as antigen-presenting cells to induce immunity to Strongyloidesstercoralis in mice. J Infect Dis. 2007;196:1844–51.
17. O'Connell AE, Redding KM, Hess JA, Lok JB, Nolan TJ, Abraham D. Soluble extract from the nematode Strongyloid esstercoralis induces CXCR2 dependent/IL-17 independent neutrophil recruitment. Microbes Infect. 2011;13:536–44

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