

CASE REPORT

BLOODY DIARRHOEA IN A CHILD, COULD IT BE SCHISTOSOMIASIS?

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Schistosomiasis may cause diverse symptoms and it is usually not considered as a cause of disease especially in patients with normal immune system. We are reporting an eleven-year-old child who was initially diagnosed as a case of lymphoma but later on proved to be a case of acute schistosomiasis.

Keywords: Bloody diarrhoea; Hyper-eosinophilia; Colonoscopy; Schistosomiasis

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INTRODUCTION

Schistosomiasis is first time described in 1852 by Theodor Bilharz in Egypt, that is why sometime is referred to as Bilharziasis. It is a parasitic disease caused by *S. haematobium*, *S. Mansoni*, and *S. Japonicum*.^{1,2} The most common clinical manifestations are fever, arthralgia, abdominal pain, bloody diarrhoea, cough, headache, rash, hepatosplenomegaly, lymphadenopathy and marked eosinophilia.³

The diagnosis of schistosomiasis can be confirmed by stool microscopy showing ova, serology, or by consistent radiologic findings. Tissue biopsies may demonstrate ova after stool examination is negative. A routine full blood count may show eosinophilia in infected patients.⁴

CASE

This is a case of an eleven-year boy who was referred from a remote small city with one-month history of vomiting, blood and mucous in stools associated with significant weight loss. In his local hospital he was treated with a course of IV Antibiotics (Ceftriaxone and Metronidazole) with no response. There was no history of abdominal pain, fever, petechial rash, bruises or bleeding from any other site.

On examination he was afebrile. There was no evidence of pallor, jaundice, clubbing, lymphadenopathy or oral ulcers. The liver was enlarged with span of 18 cm, non-tender, firm in consistency with smooth surface and regular margin. The spleen of the size of 3 cm was palpable below left costal margin.

The rest of his systemic examination was normal. His initial CBC done in local hospital showed a very high white cell and eosinophil count. Due to possible lymphoma he was referred to haematology and oncology department at our hospital for further investigation and treatment.

Laboratory investigations showed WBC = $81.4 \times 10^9/L$ (Normal = $4.3-11.3 \times 10^9/L$), Hb=147g/l, Platelets = $529.1 \times 10^9/L$, Neutrophil =

4.5%, Eosinophil = 82.9% (1-12%), CRP=7.4, Urine analysis = -ve, urine and stool cultures = -ve, stool for ova & parasite = -ve, Clostridium difficile toxin = -ve, autoimmune work up was normal, bone marrow biopsy was normal. Hepatic renal and coagulation profiles were normal.

The CT chest, abdomen and pelvis showed multiple lung nodules, hepatosplenomegaly, multiple liver deposits and multiple mesenteric and intra-abdominal enlarged lymph nodes as shown in figure-1 (A, B). The upper GI endoscopy with biopsies was normal. The colonic biopsies showed active colitis with increased number of eosinophils and a granuloma containing schistosomal ova as shown in figure-2 (A, B, C). There was no evidence of mycobacteria and fungi in colonic biopsies.

Based on the clinical presentation and investigations, diagnosis of schistosomiasis was made. He was started on praziquantel and steroid. He responded well to this treatment and he became completely asymptomatic. He was discharged home and then subsequently we followed him up in our clinic and there were no further concerns with regards to his health. He also started to gain weight. His WBC count dropped from $81.410^9/L$ to $11.810^9/L$ and eosinophil count decreased from 84.9-49.1%.

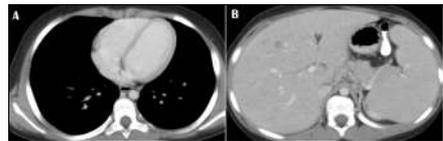


Figure-1:(A), showing multiple lung nodules and 1(B) multiple liver deposits

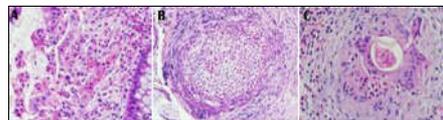


Figure-2: (A) showed Eosinophilic cryptitis, 2 (B) showed Granuloma, 2(C) Schistosoma ova

DISCUSSION

Acute schistosomiasis has been overlooked, underreported, underestimated and misdiagnosed.⁵ As in our case which was initially diagnosed a case of lymphoma ultimately turned out to be a case of schistosomiasis.

The acute phase of schistosomiasis is usually asymptomatic but clinical signs of varying intensity may occur. The most common manifestations of acute schistosomiasis are fever, chills, weakness, weight loss, headache, nausea, vomiting, diarrhoea, hepatosplenomegaly and marked eosinophilia. The clinical presentation of our patient was very similar to as described above.

Interestingly pulmonary involvement was only revealed by computed tomography of the chest. The x-ray chest was normal and also, he did not have any respiratory symptoms. This is supported by the study done by LAM *et al* who have diagnosed 4 cases on CT chest with pulmonary involvement but without pulmonary symptoms and normal chest x-ray.⁶ Therefore CT chest is recommended to identify pulmonary involvement in cases with normal chest x-ray.

Our case also has hepatic involvement without the derangement of liver enzymes. The CT scan of the abdomen showed hepatosplenomegaly with multiple liver deposits. This again emphasises the importance of CT scan in picking up hepatic involvement in acute schistosomiasis, which sometimes may be fatal if not treated early.⁷

In our child the stool analysis for schistosoma ova was negative despite having colitis and positive colonic biopsies for schistosoma ova. This may happen as stool examination may be negative if parasite load is weak. In one study of 135 patients with schistosoma mansoni, 61% had ova detected on rectal biopsy whereas only 39% had ova detected in stool. So, the rectal biopsies may reveal eggs even when multiple stool samples are negative.⁸ Hence the rectal mucosal biopsy is a useful diagnostic tool.

The other interesting finding was extremely high eosinophil count in our case. But this may happen as eosinophilia is a frequent finding in patients with Katayama fever.⁹ Despite there were many clues in our patient but diagnosis of schistosomiasis was not made initially and was referred to us to rule out lymphoma.

CONCLUSION

Schistosomiasis should also be considered in a child presenting with acute colitis and weight loss. Colonic biopsies must be performed as stool samples may be negative for schistosoma ova. CT chest and abdomen should be performed to look for pulmonary and hepatic involvement. Early diagnosis and treatment is important in order to avoid fatal outcome or progression to chronic form.

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