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CASE REPORT

HOOK WORM INFESTATION IN TEN WEEKS OLD INFANT

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Abstract: Hook worm infestation is very rare in early age. We report a *2Vt* months old infant who presented with severe anaemia and passage of dark colour stools. There was no history of bleeding and no signs of haemolysis were noticed. Stool examination revealed ova of Ankylostoma duodenale. Stool examination of the mother also revealed hook worm infestation. As 6-8 weeks are needed to pass ova in the stools from the date of penetration of the skin by the larvae, the possible cause in this was infection through the skin in the 1st few days after delivery or as a result of laying down the child on infected ground.

Introduction

Hook worm infestation is a common problem all over the world specially in developing countries. Infestation is common in all ages. It has wide incidence in the bare footed children of the subtropics and tropics. Infection with the hook worm first occurs in young children when they begin to crawl, toddle or walk about, and thus bring their skin in contact with larvae-contaminated soil. However, even young infants can be infected through the skin of the back or elsewhere, if they are laid on infected ground.[1]

Eggs are passed in the stools, develop into free living larvae on reaching the soil and after four days or more, become mature and are capable of penetrating unbroken skin. Following this they are carried to the lungs, and migrate thence through the bronchi and trachea to the oesophagas and eventually to the small intestine. This cycle takes 6-8 weeks.[2] One Ankylostoma duodenale is estimated to be responsible for the loss of 0.15 to 0.26 ml of blood in a day.[1] The hookworm infestation usually presents itself as anaemia. Ground itch, pneumonitis, cough, dyspnoea and occasionally haemoptysis may also be the presenting early symptoms.

Diagnosis depends upon the detection of ova in stools together with a strongly positive faecal occult blood and microcytic and hypochromic anaemia.

Prevention is bound up with effective disposal of faeces and avoiding bare footed walking.

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Case Report

A 75 days old sufficiently breast fed infant was hospitalized for diagnosing and treatment of severe anaemia through the Casualty Department. The patient belonged to Gidar Pur, District Mansehra. According to the mother the baby had pallor and fever for 15 days and cough for 5 days. Clinically the patient was severely anaemic. No apparent sign of bleeding was detected. Chest had occasional rhonchi, heart rate was increased, liver was just palpable. There was no splenomegally or lymphodenopathy. He weighed 4.5 kg. His Hb was 3.8 g/dl, platelets were 180 x 10^9/1, WBCs were 14 x 10^9/1.

Differential count showed 7% Eosinophils and blood film revealed microcytic and hypochromic RBCs. No malarial parasite was seen. Direct Coomb's test was negative and G6PD was not deficient. X-Ray chest and urine examination did not reveal any abnormality. As the colour of the stools passed was dark, stool examination was advised, which showed large number hookworm ova. Faecal occult blood was also strongly positive.

To establish the origin of hookworm infestation the stool examination of the mother was done which showed ova of hook worm and Trichuris trichura. Blood transfusion was given and the baby was dewormed with pyrantel. His mother was also advised deworm therapy. The cough and fever subsided within two days and the haemoglobin level raised to 8.2 g/dl. The infant was discharged on haematinics. On subsequent visit to OPD the anaemia had improved and stool was normal.

Discussion

Looking at the age of the infant, duration of symptoms and the life cycle of the hookworm it is clear that hookworm infestation had occurred in the first few days of delivery. However, the exact route for entry of the larvae is not clear.

The most probable route of entry is the penetration of larvae through the skin which could reach through the infected hands of his mother or other contacts. The mother might have laid him on the infected ground. The other possibility is the ingestion of the larvae which could gain access from the infected hands of the mother or dirty clothes of the infant as Ankylostoma duodenole is adapted to this route (enteric nematodes of hookworm).

It is suggested therefore, that hookworm infestation may also be considered as a cause of anaemia even in young infants especially in the endemic areas.

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