



REVIEW

Recovery of Soil Transmitted Helminthes (STH) Ova from Diaper of Female Child

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ABSTRACT

Soil Transmitted Helminthes (STH) is always a problem in developing and under developed countries. Children are mostly prone to STH in tropical and non-tropical countries including Pakistan. We have observed ova of *Ascaris* and some non-descriptive objects in the parasitological examination of the fecal material of infant collected from diaper.

1. Introduction

Soil-transmitted helminthes (STH) infections remain major public health concerns in many parts of the world, particularly in the poorest developing countries, cost-effective solutions are both available and deliverable^[13]. STH are always a problem in Pre-school children and school going children. It is estimated that more than one billion of the world's population is chronically infected with soil-transmitted helminthes and 200 million are infected with schistosomes. The high prevalence of these infections is closely correlated with poverty, poor environmental hygiene and impoverished health services^[1]. Helminthiasis remained problem of all ages and various recovery techniques like molecular, simple robust procedures, Direct Microscopy and Bearmann Techniques have been employed from long times. Through literature

study it revealed that Prevalence and distribution of soil transmitted helminthiasis claimed a Population at risk about 2 billion people. Population infected by STH are more than 1 billion. The Major soil-transmitted helminthes are *Ascaris lumbricoides* which has infected people with associated morbidity 250 million and claimed annual mortality of about 60,000 children/ people worldwide. The other most common helminth is *Trichuris trichiura* which can infect people with associated morbidity 46 million and it has been reported about annual mortality of 10,000 children/ people globally. The hookworm like *Ancylostoma duodenale* and *Necator americanus* has infected people with associated morbidity 151 million and claimed annual mortality 65,000 people in 1998^[1] A few of reports from Pakistan has been presented and published showing meager data among adult and children population^[2,3,4] and

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it has been also correlated with drug addiction too^[5].

2. Case Report

A female child pre-school of 3 years age complained for abdominal discomfort. Her history revealed clay eating habit off and on when not attended, so it was suspected a case of STH. Her fecal examination for parasitological examination through conventional microscopy was conducted for the presence of ova or larva of helminthes. The fecal examination revealed the presence of Helminthic ova and larva of *Ascaris lumbricoides* along with other unidentified objects. After confirmation of Soil-transmitted Helminthiasis problem, the child was administered albendazole solution @400 mg for three days to cure and eliminate STH completely^[6]

3. Discussion

Soil transmitted Helminthiasis (STH) is a problem reported globally among people of all ages

and gender. The socio-economic and living conditions of the inhabitants play a major role for its transmission. The major endemic regions include south and south-west China, southern regions of India, south-east Asia, sub-Saharan Africa, and Central and South America^[7,8] The reason for presence of ova of various helminthes to cause helminthiasis is free range roaming and defecation of contaminated adults and children in endemic slum areas with low level of hygiene measures. There is one reason by which contaminated water including polluted riverine water is used for drinking and vegetation purposes and poor body hygiene. The helminthes cause severe deficiency in ferritin a leading cause of anemia^[9] leading to iron-deficiency anemia (IDA). The children infected with hookworms has retarded growth, deformed bones, changed profile of hemogram and abundance of cytokines to suppress appetite mechanism^[10] along with manipulation of helper T cells. There is abundance of prevalence of tropical eosinophilia and hyper-IgE^[11]. There are Efforts needed to be made to prevent the effects of worms. Prevention can be done through a promotive approach^[12] and regular use of anthelmintics in positive individuals or children in endemic area. The proper body hygiene and cut off life cycle of helminthes is required. More cross sectional studies are required among all population subjects.

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