

## An Unusual Case of Pulmonary Ascariasis in Trinidad: Should We Re-open the Can of Worms?

The Editor,

Sir,

Within recent time, we have seen a few overt cases of helminthiasis at our hospital. The most notable, was the case of a nine-year-old female who presented with a three-day history of fever and two-day history of cough. On computed tomography (CT) scan she was found to have a massive left-sided pleural effusion which was drained by an intercostal chest tube. *Ascaris lumbricoides* was detected on microscopy of the chest tube tip after its removal, however, no peripheral eosinophilia was recorded throughout hospital admission. The patient was treated with mebendazole and subsequently showed marked improvement.

It is estimated that intestinal parasite infections affect more than one-third of the world's population with the highest rates in school-age children (SAC). Worldwide, round worm, *Ascaris lumbricoides*, whipworm, *Trichuris trichuria* and hookworm (*Necator americanus* or *Ancylostoma duodenale*) are the commonest soil transmitted helminths [STH] (1). Ascariasis is a public health problem especially in areas with poor sanitation and lower socio-economic groups. Its worldwide prevalence is 25%, found equally in males and females (2).

Ascariasis is transmitted *via* faeco-oral route, when agricultural products or food contaminated with parasite eggs are consumed (3). Second stage larvae pass through the intestinal wall and migrate *via* the portal vein system to the liver and then proceed to the lungs, where they may produce pneumonia and eosinophilia (2). Symptomatic pulmonary disease may occur with fever, cough, chest pain, haemoptysis, dyspnoea and wheezing due to Löffler's syndrome and chronic eosinophilic pneumonia (3). The World Health Organization (WHO) has set the global target to eliminate morbidity from soil-transmitted helminthiasis in children by 2020. This will be obtained by regularly treating at least 75% of the children in endemic areas [estimated total number 873 million] (4). A study done by the Pan American Health Organization revealed that there was no data available on STH for analysis for Trinidad and Tobago and similarly most other Non-Latin Caribbean countries except Guyana and St

Lucia (1). Guyana reported a prevalence of 28.2% for municipality Ireng/Upper Potaro and St Lucia recorded a total prevalence of between 1–22.5% of STHs for children under 141 years. There was also no data on STHs for Trinidad on the Global atlas of Helminth infections. (An open access information resource on distribution of STHs and schistosomiasis).

It has been a cultural practice in Trinidad and Tobago and other Caribbean Islands by parents to perform a yearly “worm out” or “purge” on their children. This has been frowned upon by some physicians since anti-helminthics are not without side-effects. The World Health Organization advocates periodic anti-helminthics to at-risk groups including: preschool-aged children and school-aged children in endemic areas. It recommends annual treatment in areas where prevalence rate of soil-transmitted helminthiasis is between 20% and 50% and a bi-annual treatment in areas with prevalence rates of over 50% (4).

In light of the lack of data for prevalence of STHs in most Caribbean Islands, it is difficult to say whether this practice should be maintained or abandoned. Furthermore, it raises the question whether cases of helminthiasis are being under-diagnosed. We need to think about analysing random stool samples for ova, cysts and parasites and/or embarking on formal surveys of at-risk populations, especially SAC. Although helminthiasis is an obscure and sometimes ignored pathology, this case brings to light the need to rethink the topic and ask ourselves whether we should re-open the can of worms?

**Keywords:** Ascariasis, Helminth, pulmonary, Trinidad

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