Picture story

Monkey tapeworm (*Bertiella studeri*) infection in a toddler

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Introduction

Bertiella genus tapeworms are common parasites in the small intestine of primates[1]. Humans are incidental, definitive hosts and can acquire the disease by accidental ingestion of fruit or soil contaminated with infected mites[2]. *B. studeri, B. mucronata, B. satyri* infect humans[1]. The first case of *Berteilla* infection was identified in Sri Lanka in 1975[2,3]. Since then, there have been a few reported cases from Sabaragamuwa, Southern and Central Provinces[2]. The Ceylon torque monkey (*Macaca sinica*) and gray langur (*Presbytis entellus*) that inhabit the Central Province, are recognized as reservoir hosts of *Bertiella*[2]. However, as a result of deforestation, these monkeys have now entered human settlements resulting in an increased exposure of humans to *Bertiella* infection[1]. We report the first paediatric case with *Bertiella* infection from the Western province of Sri Lanka.

Case report

A 3-year-old girl, from a middle-income family residing in Imbulgoda, who had been previously well; presented with the passage of white, motile flat worm segments for 6 months duration following a travel history to Central and Southern Provinces (Figure 1).

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She has had intermittent episodes of loose stools, abdominal pain and reduced appetite. However, no vomiting, per rectal bleeding or perianal itching were noted. Her weight for height was between -1SD to -2SD and during that 6-month period there was no documented weight loss. She had been treated with anthelmintics mebendazole, pyrantel pamoate, and albendazole on several occasions without resolution of symptoms. *Bertiella studeri* gravid segments and eggs were identified in the Stool Full Report (Figure 2).

The child was managed with praziquantel 200 mg followed two hours later by insertion of a bisacodyl suppository. She passed the adult worm including the scolex and gravid segments afterwards (Figures 1, 3 and 4).

Discussion

Common presentations of *Bertiella* tapeworm infection include passage of worm segments, gastrointestinal symptoms such as diarrhoea, abdominal pain and perianal itching[2,4]. Increased awareness amongst paediatricians about this zoonotic infection will facilitate early identification and administration of timely and appropriate treatment. Niclosamide and praziquantel are the drugs that have been used for treatment[2,4]. Cases with resistance to niclosamide have however, been documented[2]. Both these medications are not included in the Sri Lankan National List of Essential Medicines and we encountered great difficulty in procuring these medications for the reported patient. With the increase in the number of reported cases, we reiterate the importance of registering praziquantel and niclosamide in the Sri Lanka National List of Essential Medicines for timely treatment of affected children.

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Figure 1: *White, flat worm segments*

Figure 2: *Bertiella studeri eggs in stool sample under low magnification*

Figure 3: *Scolex*

Figure 4: *Adult worm*