

## Case Reports

# Two cases of monkey tapeworm (*Bertiella studeri*) infestation from Sabaragamuwa Province

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*Sri Lanka Journal of Child Health*, 2006; **35**: 34-5

(Key words: monkey tapeworm, *Bertiella studeri*, child, Sri Lanka)

### Introduction

*Bertiella studeri* is an anaoplocephalid tapeworm which inhabits the small intestine. Monkey is its natural host while intermediate hosts are certain species of Oribatid mites which are found in soil<sup>1,3,4</sup>. Human infection can occur as a result of accidental ingestion of infected mites, containing the cystercercoid stage of the worm. The first case of human infection in Sri Lanka was reported in 1976 from the central province<sup>1</sup>. Several cases were reported from southern province<sup>2</sup> and we report the first two cases from Sabaragamuwa.

### Case 01

A 2 year and 6 month old boy from Kahawatta, presented to General Hospital Ratnapura with a history of passing white, flat, motile, worm segments in stools of one month duration. The child had no other symptoms. He was treated by a general practitioner with mebendazole and pyrantel on two occasions. Segments were sent to Department of Parasitology, Faculty of Medicine, Colombo and identified as proglottids of *Bertiella studeri*.

He was treated with a single dose of 1g of crushed tablet of niclosamide orally followed by a bisacodyl suppository in two hours. Several segments were passed but scolex was not identified. The child was followed up for a period of six months and he did not pass any segments.

### Case 02

A five year old boy from Nivitigala presented to General Hospital Ratnapura with a history of passing white, flat, motile, worm segments in the

stools. Child had no other symptoms. Segments were sent to the Department of the Parasitology, Faculty of Medicine, Colombo. The segments were identified as proglottids of *Bertiella studeri*. The child was treated with a single dose of 1g of crushed tablet of niclosamide orally and followed by a bisacodyl suppository. She continued to pass segments after the treatment and was treated with praziquantel 100mg as single dose followed by a bisacodyl suppository. Several segments were passed on the following day but scolex was not identified. He was followed up for nine months and was free of symptoms.

### Discussion

Human infection is acquired by accidental ingestion of the cystercercoid larval stage containing oribatid mite that is found in the soil<sup>1,3,4</sup>. Children acquire the infection by eating fruits contaminated by larval stage containing mites<sup>1,3,4</sup>. In case 01 child responded to niclosamide while in case 02 the child did not respond to it and had to be given praziquantel. Therefore it is likely to be a case of niclosamide resistant *Bertiella studeri* as reported previously from Sri Lanka<sup>4</sup>. Remote villages of Kahawatta and Nivitigala are bordered by jungles which include tropical rain forest of Sinharaja. These villages are frequently visited by Ceylon toque monkey (*Macaca sinica*) and grey langur (*Presbytis entellus*) most likely reservoir hosts of this parasite. Parents and medical officers working in these areas should be made aware of presenting features of the tape worm infestation and the mode of transmission. Both niclosamide and praziquantel are not indexed in the Sri Lanka drug index and not freely available in both government and private sectors.

### Acknowledgements

We thanks Prof. ND Karunaweera of Department of Parasitology, Faculty of Medicine, Colombo for identification and providing reading material.

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(Received on 4 October 2005. Accepted on 20 November 2005).

## References

1. Edirisinghe JS, Cumararajan SM. The first record of *Bertiella studeri* infection in a child from Sri Lanka, *Ceylon Medical Journal* 1976; **22**: 137-40.
2. Weerasooriya MV. de Silva DDS, Mendis DH. *Bertiella studeri* infection in children-report of cases. Proceedings of the 48<sup>th</sup> Annual Sessions of Galle Clinical Society, August 26-27, 1988, Abstract 13: 17. Galle Faculty of Medicine, 1988.
3. Karunweera ND, Ihalamulla RL, Wickramathanthri HK, Lamahewage A. *Bertiella studeri*: a case of human infection. *Ceylon Journal of Medical Science* 2001; **44**: 23-4.
4. Gallella SD, Gunawardena GSA, Karunaweera ND. *Bertiella studeri* infection: resistance to niclosamide. *Ceylon Journal of Medical Science* 2004; **49**; 65