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A Hairworm (Gordiacea) "parasitic" in a Child in Ceylon

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(With one Text Figure and one Plate)

THE parents of a 3year old girl resident in Mattakuliya, Colombo,noticed a peculiar fibre-like worm on the floor of her bedroom. The child had vomited on about the same spot the previous night and the vomit had not been completely cleared away. For some days before, the child had found difficulty in passing urine and this condition persisted for a short period after.

On examination the worm was found to be a hairworm (Gordiacea)—(Fig. 1), and referable to *Chordodes shorikowi* Camerano, which has been reported in Ceylon by Camerano (1903 a).

TEXT FIG. 1

Twenty nine cases of Gordiacea have been recorded so far, as "parasitic" in man. Twenty six of these have been enumerated by Watson (1960) from Europe, North and South America, and Africa while Sandosham (1953) and Fernando and Fernando (1961) have reported two cases from Malaya, and Yeh and Jordan (1957) described a case from Tanganyika.

Description

The worm was buff-coloured after preservation in alcohol and its surface, as seen naked eye, was covered with minute warts (areoles). It measured 12.3 cms in length by 0.9 mm in maximum width. The specimen proved to be a male and showed all the characters of the genus *Chordodes*, the posterior end being grooved with the groove running ventrally. The areoles were diverse in structure and at least seven different types were noted (Fig. 2 and Text Fig. 1).

Three species of gordian worms have been reported from Ceylon so far. They are *Chordodes verrucosus* Baird, *C.shorikowi* Camerano, and *Paragordius tricuspidatus* Baird. These worms were found either free-living in water or parasitic in insects which are their normal hosts. The present specimen agrees closely with the description of *C.shorikowi* of which only female specimens are known. Camerano's diagnosis was based largely on the areoles and the various types described by him (Camerano 1903a) appear to be present in our specimen. In addition we have noted two other types of areoles (Fig. 2 *a* and *b*) which might be variations of the types described by him. Unfortunately we have not been able to consult Camerano's full description of *C.shorikowi* (Camerano, 1903 b) and as such a more definite identification is not possible. We therefore place our specimen provisionally in the same species *C.shorikowi*.

Discussion

Hairworms have been reported in man as passed *per anum per vaginam*, and in the urinary system. Of the twenty nine cases reported so far it would appear that only one was a case of true parasitism, namely the case of Sayad, Johnson and Faust (1936) where the worm was encysted in the vicinity of the eye of the patient and surgical removal was necessary. The remaining cases as well as the present one are not well documented and seem at least to be spurious infections. In fact confirmation of any of these cases was not possible since no eggs are passed by the female worms in the host.

Fernando and Fernando (1961) have discussed the human cases in relation to the mode of infection and pathogenesis. They believe that infection can be from drinking water, when larvae enter and encyst in tissues and later find their way into either the alimentary canal or excretory system and are passed out as adults. It is also possible that adults themselves are swallowed, but are vomited soon after, as perhaps happened in the present case.

Summary

A hairworm "parasitic" in a child is reported. This is the first record from Ceylon and brings the total number of cases recorded in the world to thirty.

The specimen has been provisionally identified as *Chordodes shorikowi*, which has been recorded from Ceylon.

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* Not consulted in original

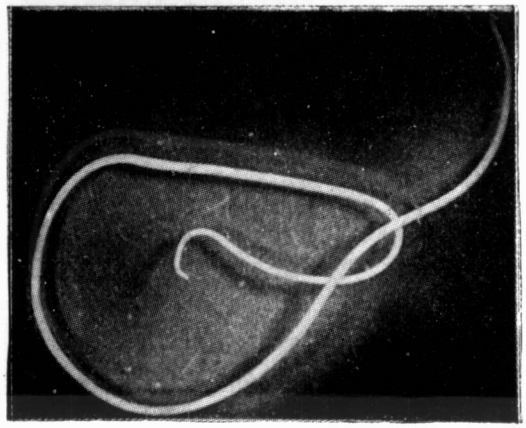
EXPLANATION OF FIGURE

TEXT FIGURE 1. Camera lucida drawing of a portion of the cuticle of the worm showing different types of areoles.

EXPLANATION OF PLATE

FIGURE 1. Entire "Hairworm" (×1.6).

FIGURE 2. Photomicrographs of different portions of the cuticle to show various types of areoles (×560). a and b indicate areoles not described by Camerano (1903 a.)



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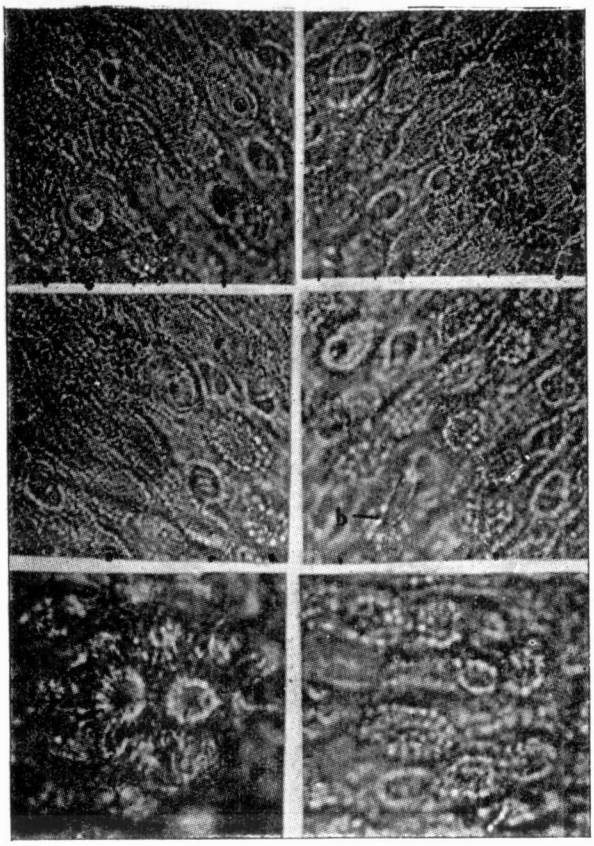

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