Speciation of Human Hookworm in the Eastern Hills of Nepal

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Of 757 human faecal samples examined at Pakhribas Agricultural Centre Veterinary Investigation Laboratory from 1982 to 1985, 17 percent proved positive for hookworm.

As the treatment of hookworm infection in man varies with the species responsible, an attempt was made to differentiate the infective filariform larvae in human faecal cultures.

Ten human faecal samples, positive for strongyle eggs on faecal examination were cultured by the method of Harada and Mori (Thienpont, Rochette and Vanparijs, 1979). For this, about $\frac{1}{2}$ gram of faeces was spread on the middle third of a piece of filter paper (13 X 120 mm) and put in a test tube containing 3 ml. distilled water. The test tubes were stoppered and incubated for 10 days at 28° C.

The infective larvae were killed by placing the test tubes in a water bath at 50° C for 15 minutes. The filter paper and stoppers were discarded and the cultures then centrifuged gently for 2 minutes. The supernatant was removed and the deposit stained with one drop of 1 percent methylene blue. 15 larvae from each culture were examined under the microscope.

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Table 1 Larval Characteristics

Length (um)	Sheath (um)	Length of oesophagus as a proportion of total	Intestine	Tail	Head	Mouth
613 ± 27	683 ± 24 Striations clear at tail end in most specimens	$\frac{1}{3}$	Anterior end as wide as oesoph- ageal bulb. Gap between oesoph- agus & intestine not readily apparent	Sharply pointed	Rounded	Spears not evident

The larval characteristics described above resemble those of *Necator americanus* more closely than *Ancylostoma* species (Muller, 1975), although it is noteworthy that no gap was distinguished between the oesophagus and intestine and mouth spears were inapparent (both characteristics of *Ancylostoma* species).

References

- Muller R. (1975) *Worms and Disease 'A Manual of Medical Helminthology'*. Heinemann, London.
 Thienpont D., Rochette F. and Vanparijs O. F. J. (1979) Diagnosing Helminthiasis through Coprologic Examination Janssen Research Foundation.