To the Editors:

Hookworm infection as a cause of melaena

The case report by Lamabadusuriya and Perera (1) highlights an unusual manifestation of hookworm infection. However, melaena due to hookworm infection is not as rare as the authors seem to imply, especially in the paediatric age group. A review of infantile hookworm disease in China found that it has been reported in over 500 infants since the 1960s and melaena was the most frequent manifestation (in 75 to 100% of cases) which brought the baby to hospital (2).

There are some unusual features in their case report (1). Firstly, the age of the child: at 2 years, this child is older than those reported in China, nearly all of whom were below 12 months of age, including many who developed disease in the first month of life, perhaps from transmammary transmission. Secondly, the species of parasite: all except one of the Chinese cases were caused by *Ancylostoma duodenale*. This species is said to cause more blood loss and damage to the small intestinal mucosa than * Necator americanus*, the offending parasite in the local case report. Finally, the results of stool examination for helminth ova are most surprising: the initial report was negative for hookworm ova, and subsequent examination gave a count of 150 hookworm eggs / gram faeces. This count qualifies for classification only as a light infection, according to WHO criteria (<2000 epg faeces) (3), and is not in accordance with the endoscopic findings of "a large number of worms attached to the second part of the duodenal mucosa" (1). Melaena would not have occurred unless there was a sizeable population of adult hookworms present in the child's small intestine. It is unlikely that the low count was due to immaturity of the worm population, for the case history states that the child was at the Lady Ridgeway Hospital for over a month, giving ample time for maturation of female worms to the stage of egg production. The most probable explanation is that the first laboratory reports were incorrect.

This case report serves as a timely reminder that foci of intestinal nematode infections will remain in parts of Sri Lanka, where socio-economic conditions are poor and latrines absent. It also emphasises the fact that personnel in Sri Lankan hospital laboratories should be better trained to carry out the simple, inexpensive laboratory tests for stool examination for intestinal nematode ova.

References

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To the Editors:

A pilot study of a low cost CLO test

The preliminary results of a study conducted by us on McNulty's solution (a cheap alternative to commercial CLO test) at the endoscopy unit, Colombo South Teaching Hospital show a similar pattern with regard to the time taken for a positive result to that conducted by Satarasinghe and others (1). The time taken for biopsies to give a positive result with McNulty's solution is longer than that determined by McNulty (2). Of the 13 biopsies that gave a positive result with McNulty only 2 were positive within 2 hours, 9 in 6 hours, and 4 within 24 hours. These results persuaded us to carry out the following project to determine the minimal concentration of *Helicobacter pylori* and the time taken according to concentration to initiate a colour change, and to determine if Sri Lankan clinical strains differ from the control strain (NCTC11637) for a positive result by the McNulty urease test.

We took an initial concentration of $5 \times 10^6$ from the strain NCTC11637 and two (as culture is difficult we currently have only this number) clinical isolates from Sri Lanka. A serial dilution of 1 to 10 was done in isotonic saline. A 100 µl of each dilution was inoculated to McNulty solution. Time taken for the solution to undergo a colour change with and without incubation at 37°C was recorded.

The urease test made in our setting (McNulty's solution) detected the presence of organisms in 5 minutes at $5 \times 10^4$ and within 2 hours at $5 \times 10^5$. However the test became positive only at 12 hours at $5 \times 10^5$. None of the other dilutions, including the negative control became positive even with 24 hours' observation.