



Heterodera: a spurious passenger or an irritator?

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Sir,

A 60-year-old male patient presented with right abdominal pain with diarrhoea of one week duration to the department of medicine. There was no history of fever or any other specific abdominal signs and symptoms. He was diagnosed to have Irritable Bowel Syndrome (IBS) and treated with medications for the past six years. But his symptoms persisted on and off. Routine blood investigations and abdominal ultrasound was normal. Lower gastroscopy revealed mild diverticulitis. Stool examination demonstrated oval, bile stained parasitic eggs with larva inside the ova [Figure I]. The size of the ova was similar to that of *Ascaris lumbricoides*. The images of the ova were sent to CDC, USA for identification which was reported as *Heterodera* species, a plant nematode and a spurious passenger in the stool. Retrospectively, the history revealed association of his symptoms with the consumption of tubers like tapioca and potato. His symptoms had subsided by the time a repeat stool examination was done after 4 days which did not reveal any parasite.

We compared the clinical condition of the patient to that of animal scabies in humans and suggested whether *Heterodera* can be the cause for patient's symptoms. *Sarcoptes scabiei var hominis* is a species specific mite that causes scabies only in human beings. The characteristic symptom of scabies infection is intense nocturnal itching. The presence of burrow within the skin of finger webs and genitalia is pathognomonic of scabies.

However, animal scabies in human is caused by a different kind of scabies mite that does not survive or reproduce on humans but cause 'mange' in animals. When a person comes in contact with an infested animal, the animal mite can cause temporary itching and skin irritation. However, the animal mite cannot reproduce on a person and will die on its own in a couple of days. Therefore, the mainstay of the treatment is symptomatic relief with avoidance of contact with the animal.¹

Similarly, *Heterodera*, a plant pathogen is found commonly in rice, vegetables and other crops like coconut, banana, tapioca, yams, pulses etc.² The parasite does not cause any pathologic disease in humans but it can be the reason for the irritation of the human bowel by its mere presence which can lead to the IBS.

Figure I:

Heterodera ova in 40x iodine mount



Heterodera Ova in 40 X Iodine mount

Figure II: Plant nematodes in the various regions of Kerala. (Modified from Reference 3)



Further studies are required to attribute *Heterodera species* as one of the cause for IBS. However, till further evidence accumulates in favour of this hypothesis, it is imperative to identify the distribution of the different plant nematodes in the various regions of Kerala [Figure II] and advise proper cultivation methods to avoid contamination of crops.³

Acknowledgements:

We are thankful to CGH DPDM DPDx Web Inquiries (CDC)

Conflicts of interest- Nil

Acknowledgements- Nil

Date of submission: 9-10-2014

Date of acceptance: 11-11-2014

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nciddpddpx@cdc.gov for helping us in identifying the parasite.

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