Letter to the Editor

Disseminated Cysticercosis

Dear Sir:

I read with interest the well-illustrated report of disseminated cysticercosis in a Japanese international traveler by Kobayashi and others in the *AJTMH*.¹ I wish to compliment the authors on the accurate diagnosis and prompt treatment of this patient because previous experience suggests that clinical diagnosis of disseminated cysticercosis is seldom achieved even in endemic regions given the rarity of the disease contributing to low clinical suspicion.² Because international travel has become inevitable in today's global world, clinical experience such as the authors' gives us vital awareness about the perils of such tours.

Certain aspects of the pathogenesis of the disease in the patient, however, are not entirely clear to us. It is known that there are two discrete forms of Taeniasis: intestinal tapeworm infestation, which is usually asymptomatic, and clinical cysticercosis. The pork tapeworm, *Taenia solium*, is found in the small intestine of humans (definitive host), and the larval forms (cysticerci) are found in the skeletal muscle of pigs (intermediate host). Ingesting pork containing cysticerci is considered the route through which individuals most often acquire the infestation and thus, become carriers.³ The authors mention that patient's host family members were apparently normal and therefore, the patient may not have acquired the disease through fecal–oral contamination with eggs. In other words, infestation was acquired not through eggs but through larval forms, which in turn grew into adult worms. The fact that the patient had a history of excretion of worm segments further favors this assertion. Could partaking of pork, which was part of the patient's diet during his overseas travel, then have been the more likely means of infestation based on what I know about the disease?

Furthermore, although there appears no doubt that worm infestation was acquired during the patient's international travel to an endemic country; the pathway leading to clinical cysticercosis is intriguing. Clinical cysticercosis follows ingestion of eggs present in water or food contaminated with

human feces³; therefore, is it likely that the patient's progression from worm infestation to clinical cysticercosis were caused by feco–oral transmission of eggs excreted by his own self? These insights will enable us to better understand the pathogenesis of cysticercosis in international travelers and thus, devise possible preventive measures for our patients.

Finally, I would like to point out that there is a growing concern in the medical community about the ionizing radiation from computed tomography (CT), which has become the largest source of medical radiation exposure to the population.⁴ Recently, whole body-magnetic resonance imaging (WB-MRI) using the total imaging matrix (TIM) coil has been shown as a valuable stand-alone modality in the diagnosis and management of disseminated cysticercosis.^{3,5} Therefore, when disseminated infection is suspected, using WB-MRI instead of whole body CT may spare our patients from the potential long-term effects of ionizing radiation from CT.

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