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Letter to editor

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Cryptosporidium contamination in surface seawaters in different coastal areas of Thailand: is there any effect from tsunami attack?

Sora Yasri^{1*}, Viroj Wiwanitkit^{2,3,4,5}

¹KMT Primary Care Center, Bangkok, Thailand

²Hainan Medical University, China

³Faculty of Medicine, University of Nis, Serbia

⁴Joseph Ayobabalola University, Nigeria

⁵Dr D Y Patil Medical University, India

Dear editor,

The *Cryptosporidium* spp. are important protozoa that can be pathogenic for human beings[1,2]. These protozoa can cause diarrhea and contaminate several foods as well as water. These protozoa can be seen worldwide. In tropical world, they are one of presently problematic pathogenic protozoa. In Thailand, these protozoan still cause diseases and has to be controlled[3]. The contamination of the surface seawater with protozoa is interesting. A recent report showed the high contamination rate in sea mussel which is the common seafood of the Thais[4]. Here, the authors tried to assess the reported prevalence of contamination of *Cryptosporidium* spp. in sea waters from different coastal areas of Thailand. Of interest, there are 2 previous relating reports on this topic[5,6]. The reported rates of contamination range from 6.0% and 12.7% (Figure 1).



Figure 1. Map showing the coastal areas that were reported by studies of *Cryptosporidium* contamination in surface sea waters. Circle: Without previous tsunami attack; Star: With previous Tsunami attack.

Of interest, the higher prevalence rate was observed in the area with the previous history of Southeast Asian tsunami attack. It might be proposed that the tsunami attack have some relationships to high contamination rate. Nevertheless, there has been no pre-tsunami data, hence, it cannot conclude that the high prevalence in the tsunami attack area occurs after attack.

Conflict of interest statement

We declare that we have no conflict of interest.

References

- [1] Cama VA, Mathison BA. Infections by intestinal Coccidia and *Giardia duodenalis*. Clin Lab Med 2015; **35**(2): 423-44.
- [2] Šlapeta J. Cryptosporidiosis and Cryptosporidium species in animals and humans: a thirty colour rainbow? Int J Parasitol 2013; 43(12-13): 957-70.
- [3] Sutthikornchai C, Jantanavivat C, Thongrungkiat S, Harnroongroj T, Sukthana Y. Protozoal contamination of water used in Thai frozen food industry. Southeast Asian J Trop Med Public Health 2005; 36(Suppl 4): 41-5.
- [4] Srisuphanunt M, Wiwanitkit V, Saksirisampant W, Karanis P. Detection of *Cryptosporidium oocysts* in green mussels (*Perna viridis*) from shellfish markets of Thailand. *Parasite* 2009; 16(3): 235-9.
- [5] Koompapong K, Sukthana Y. Seasonal variation and potential sources of *Cryptosporidium* contamination in surface waters of Chao Phraya River and Bang Pu Nature Reserve pier, Thailand. *Southeast Asian J Trop Med Public Health* 2012; 43(4): 832-40.
- [6] Srisuphanunt M, Karanis P, Charoenca N, Boonkhao N, Ongerth JE. Cryptosporidium and Giardia detection in environmental waters of southwest coastal areas of Thailand. Parasitol Res 2010; 106(6): 1299-306.

*Corresponding author: Sora Yasri, KMT Primary Care Center, Bangkok, Thailand.

E-mail: sorayasri@outlook.co.th

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