Contents lists available at ScienceDirect

Asian Pacific Journal of Tropical Biomedicine

journal homepage: www.elsevier.com/locate/apjtb

Document heading

doi:10.1016/S2221-1691(13)60070-2

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Discovery of *Trichuris landak* n. sp. by Endang Purwaningsih

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Dear Editor,

I wish to congratulate Endang Purwaningsih for publishing in Asian Pacific Journal of Tropical Biomedicine (APJTB) the important discovery of *Trichuris landak* n. sp., a new species of whipworm that parasitizes porcupine in Indonesia. The author separated the new species from the other *Trichuris* spp. by comparing the morphologic features and morphometric measurements of the adult worms. Similar approach was reported by Robles *et al.* in the discovery of *Trichuris navonae* n. sp. from forest-dwelling mice in Argentina^[1].

Trichuris spp. are relatively host specific in nature; for instance *Trichuris trichiura* infects human and *Trichuris suis* infects pigs. However, Ravasi *et al.* revealed that two distinct *Trichuris* genotypes were found to infect both humans and non-human primates in South Africa^[2]; and *Trichuris vulpis*, a common canine whipworm was found in a sick Mexican child^[3]. Hence, the potential threat of other *Trichuris* spp., such as *Trichuris landak* to human population is a health concern especially among rural folks whose environment is surrounded by zoonotic hosts.

I agree with Endang in his general comment that molecular analytical tools should be utilized in future studies to improve the speciation of *Trichuris* spp. This is due to the inherently limited number of unique external morphological features on the adult worms^[4–6]. Accurate information on the possible zoonotic behaviour of different *Trichuris* spp. is pertinent for health workers to improve on the existing control measures, since the infection still afflicts ~600 million people of the world population. Hopefully, more funding will be made available for more molecular phylogenetic studies on

Trichuris spp., which will inevitably contribute to our knowledge on the etiology of human trichuriasis.

Conflict of interest statement

I declare that I have no conflict of interest.

References

- [1] Robles MDR. New species of *Trichuris* (Nematoda: Trichuridae) from *Akodon montensis* Thomas, 1913, of the Paranaense Forest in Argentina. *J Parasitol* 2011; **97**(2): 319–327.
- [2] Ravasi DF, O'Riain MJ, Davids F, Illing N. Phylogenetic evidence that two distinct *Trichuris* genotypes infect both humans and non-human primates. *PLoS ONE* 2012; **7**(8): e44187.
- [3] Adrian Márquez-Navarro A, Gudelio García-Bracamontes G, Álvarez-Fernández BE, Ávila-Caballero LP, Santos-Aranda I, Díaz-Chiguer DL, et al. *Trichuris vulpis* (Froelich, 1789) infection in a child: A case report. *Korean J Parasitol* 2012; **50**(1): 69–71.
- [4] Criscione CD, Poulin R, Blouin MS. Molecular ecology of parasites: elucidating ecological and microevolutionary processes. *Mol Ecol* 2005; **14**: 2247–2257.
- [5] Cutillas C, Callejo'n R, De Rojas M, Tewes B, Ubeda JM, Ariza C, et al. *Trichuris suis* and *Trichuris trichiura* are different nematode species. *Acta Trop* 2009; **111**: 299–307.
- [6] Nissen S, Al-Jubury A, Hansen TVA, Olsen A, Christensen H, Thamsborg SM, et al. Genetic analysis of *Trichuris suis* and *Trichuris trichiura* recovered from humans and pigs in a sympatric setting in Uganda. *Vet Parasitol* 2012; **188**(1–2): 68–77.

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Article history:

Received 7 Feb 2013

Received in revised form 21 Feb, 2nd revised form 27 Feb, 3rd revised form 15 Mar 2013

Accepted 25 Mar 2013

Available online 28 Apr 2013