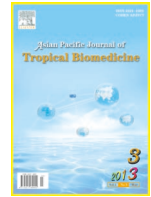




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New species: *Trichuris landak* n. sp, what is its medical implication?

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To the editor,

The report on discovery of a new nematode species, *Trichuris landak* n. sp, which has just been published in Asian Pacific Journal of Tropical Biomedicine, is very interesting[1]. Purwaningsih mentioned for the isolation of such new species from local Indonesian landak. The morphological and anatomical parameters of the new species have been presented in the discovery report[1]. This is an important paper in tropical parasitology. Indeed, some *Trichuris* species were found such as *Trichuris muris*, *Trichuris ovis* and *Trichuris parvispicularis* as early as 1788, 1795, 1908 and 1916[1]. *Trichuris landak* has not been found till the present report by Purwaningsih[1]. Based on the present, the new species is proposed based on the classical dichotomous key approach. The differentiating parts of the proposed new species from the well-known species include lateral alae, stylet and bacillary band[1]. At this stage, it can presumptively assume that this is an exact new species based on classical technique[2]. Further investigations to approve the new species include: a) experimental trail to perform parasitic life cycle maintenance in landak hosts; and b) DNA analysis for further comparative and phylogenomics study.

Assuming that this new species is verified, the further consideration should be on its clinically importance. The *Trichuris* spp. is usually problematic in either animals or human beings. Sharing many common features with other well-known species, the new species is expected to have the chance to infect human beings. The mode of transmission is usually oro-fecal transmission. Generally, the identified host, landak, is the food for some local people. This might not be the mode of transmission. However, the infective landak might pass its feces and further contamination can be expected. If there is no good sanitation system to keep clean contact to landak and its flesh, the local people might get infection. Furthermore, there is still no report on stool examination in other animals and human beings. Hence,

it can not conclude that the landak is the only host for this new species. Based on the fact that the morphology of the new species is highly similar to many pathogenic species in human beings, it can imagine that there might already be some human infections, but diagnosis is missed by the laboratory practitioner. Referring to the discovery of new 5th human malarial species, *Plasmodium knowlesi*, it was confirmed that several cases were misdiagnosed to be other species due to the limitation of classical clinical microscopy technique in species differentiation[3]. Finally, in case that this is an actual new species that has never infected human beings, it becomes the new public health concern to prevent the possibility of the new zoonosis from this new parasite. Indeed, porcupine is recorded as the host for many new parasites such as *Cryptosporidium ubiquitum* n. sp[4] and the risk for transmission to human beings is confirmed.

Conflict of interest statement

I declare that I have no conflict of interest.

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