

Determining the pattern of gastrointestinal parasitic infections among Orang Asli at Kg. Serendah, Selangor, Malaysia using molecular and parasitological methods

Mehru Nisha

University of Kuala Lumpur, Malaysia

Abstract

Gastrointestinal parasite (GIP) infections have a global distribution and a major impact on the socioeconomic and public health of the world's poorest people. In Malaysia, the Orang Asli community is prone to these infections due to environmental and personal hygiene practices. In this study, we investigated the prevalence of GIP and potential risk factors for infection among the Orang Asli community at Kg. Serendah in Malaysia. Stool samples were collected from 110 villagers. Both microscopy and molecular methods were used to identify the parasites in stool. All the participants in the survey were treated as follows: 400 mg of albendazole for above 2 years old and 200 mg of albendazole for ≤ 2 years old. After deworming exercise, the villagers were examined at 1 and 6 months post treatment. The prevalence for GIP found in this study was 67% and the parasites detected were *Trichuris trichiura* (50%), *Ascaris lumbricoides* (39%), *Blastocystis hominis* (10%), *Cryptosporidium parvum* (7.2%), *Taenia* spp., (2.7%) and Microsporidia (2.7%). Higher GIP prevalence was observed among children below 6 years compared to the adults. Multivariate analysis showed that not using the toilet and drinking non boiled water was predictive of GIP infection in this study area. Overall cure rate post treatment for *A. lumbricoides* was higher than *T. trichiura*. In summary, combination of infrastructure development particularly with reference to sanitary sewage systems and portable water supply, coupled with poverty eradication programs and increase in health awareness and access to medical care the prevalence of intestinal parasites can be controlled.

Biography

Mehru Nisha is currently a Medical Parasitology Lecturer at University of Kuala Lumpur (MESTECH), Malaysia. She has obtained her PhD in Parasitology from International Medical University (IMU), Malaysia in 2015. She is among the Young Medical Parasitology Researcher in Malaysia with high research spirit despite being an Academician. Her main research is to investigate prevalence of gastrointestinal parasites (GIP) among refugees in Malaysia, foreign workers in Malaysia, aborigine community and also parasites found in organic farms. She also investigates the drug resistant among these parasites using molecular methods. She has presented her work both in local and international conference and has few publications.

nishamirsha2002@yahoo.com