

# GENETIC DIVERSITY OF *BLASTOCYSTIS* ISOLATES FROM SYMPTOMATIC AND ASYMPTOMATIC ORANG ASLI IN PAHANG, MALAYSIA

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**Abstract.** *Blastocystis* is a genetically diverse and widespread intestinal parasite of humans and animals with controversial pathogenic outcomes. In order to enhance our understanding of the influence of subtype differences in pathogenicity, 253 stool samples were collected from Orang Asli (aboriginal) population in Pahang, Malaysia. *Blastocystis* was identified by stool culture and subtyped by sequencing the small subunit ribosomal RNA gene. Forty-five stool samples from 21 males and 24 females, aged between 2 to 56 years, were positive for *Blastocystis* by a PCR assay, with three *Blastocystis* subtypes identified, namely, ST1 (31%), ST2 (16%) and ST3 (53%). Twelve infected [ST1 (25%), ST2 (25%) and ST3 (50%)] individuals were symptomatic [diarrhea (33%) and fever (67%)]; the remaining 33 subjects were asymptomatic. The present findings indicate that among the Orang Asli population in Pahang, Malaysia *Blastocystis* infection was likely not associated with specific subtypes, even if some subtypes were predominant in the epidemiologic studies, but rather with a conjunction of host factors, such as immune status and age. Furthermore, treatment options for *Blastocystis* should be investigated because there is no consensus as to the means of eradicating *Blastocystis* infection in this population.

**Keywords:** *Blastocystis*, Orang Asli, subtype, symptom, Malaysia

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