Taeniasis and cysticercosis in Bali and North Sumatra, Indonesia

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Abstract

It has been reported that three human Taenia species are distributed in Indonesia: \textit{Taenia solium}, \textit{Taenia asiatica} and \textit{Taenia saginata}. \textit{T. asiatica} is well known in North Sumatra, especially on Samosir island in Lake Toba. \textit{T. solium} and \textit{T. saginata} are known from Bali. \textit{T. solium} is most serious public health issue in Papua (former Irian Jaya). In this report, we briefly review the present situation of these three human Taenia species mainly in Bali and North Sumatra. For community based epidemiological survey, we have adopted and applied questionnaire, microscopic observation of eggs, coproantigen tests, coproDNA tests, mitochondrial DNA analysis and morphology for isolated specimens, serology for cysticercosis and taeniasis. For detection of taeniasis cases of both \textit{T. saginata} and \textit{T. asiatica}, questionnaire by expert doctors is perfect to detect worm carriers. Coproantigen test developed for detection of taeniasis of \textit{T. solium} is also highly reliable to detect taeniasis carriers in the community. Epidemiological data from these two islands 2002–2005 are reviewed with backgrounds of historical culture, religions and customs.

Keywords: Taeniasis; Cysticercosis; \textit{Taenia saginata}; \textit{Taenia solium}; \textit{Taenia asiatica}; Serology; Mitochondrial DNA; Coproantigen; Copro-DNA; Bali; North Sumatra; Indonesia
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