Taeniasis/cysticercosis in Papua (Irian Jaya), Indonesia

Sri S. Margono\textsuperscript{a, b}, Toni Wandra\textsuperscript{b, e}, Meutia F. Swasono\textsuperscript{e}, Sri Murni\textsuperscript{e}, Philip S. Craig\textsuperscript{d} and Akira Ito\textsuperscript{e}

\textsuperscript{a}Department Research and Community Service, University of Indonesia, Indonesia

\textsuperscript{b}Directorate General Communicable Disease and Environmental Health, Ministry of Health, Indonesia

\textsuperscript{c}Faculty of Social and Political Sciences, University of Indonesia, Indonesia

\textsuperscript{d}Biomedical Sciences Research Institute, University of Salford, Salford M5 4WT, United Kingdom

\textsuperscript{e}Department of Parasitology, Asahikawa Medical College, Asahikawa, Japan

Available online 22 December 2005.

\textbf{Abstract}

Reports showed that an important parasitic zoonotic disease caused by \textit{Taenia solium}, \textit{Taenia saginata} and \textit{Taenia asiatica} is found endemic in several areas of Indonesia including Papua, Bali and North Sumatra. At present it is known that the highest prevalence of taeniasis/cysticercosis in Indonesia, caused by \textit{T. solium} is among the indigenous communities in Papua (formerly Irian Jaya). In the early 1970s, 8–9\% of stool samples from the Enarotali hospital, Paniai District (Irian Jaya) were found positive with \textit{Taenia} eggs. The samples were from members of the Ekari (Kapauku) ethnic group. Stool samples from the Moni ethnic group, living east of surrounding lakes, were egg negative. Cysticerci of \textit{T. solium} were discovered in pigs. During the years 1973–1976 cases of burns increased and were ultimately found to be primarily associated with epileptic seizures induced by neurocysticercosis cases. Among 257 cases of burns, 88 cases (62.8\%) were suffering from epileptic seizures before or during hospitalization. In the year 1981 \textit{T. solium} seropositive persons were mostly (16\%) found in the endemic Obano village. In 1997 the parasite was discovered in Jayawijaya District, which is located approximately 250 km east of Paniai District. During 1991–1995, a local health center in Assologaima, Jayawijaya District reported 1120 new cases with burns and a further 293 new cases of epileptic seizures among 15,939 inhabitants. The histopathologic appearance and mitochondrial DNA analysis found the cysts to be similar to those of \textit{T. solium} from other regions of the world. Sensitive and specific serological diagnostic methods were used and improved. Cysticerci were detected in dogs, as well as in pigs. A coproantigen test for detection of adult tapeworms in patients was carried out. Medical treatment with praziquantel for taeniasis and albendazole for cysticercosis (with prednisone and sodium phenytoin treatment in cases with neurocysticercosis) was undertaken. Lifestyle, religion, and socioeconomic aspects are important...
issues in the perpetuation and enhancing the endemicity of *T. solium* taeniasis and cysticercosis in Papua, Indonesia.

**Keywords:** *Taenia solium*; Cysticercosis; Epilepsy; Enarotali; Wamena; Papua (Irian Jaya); Indonesia

**Diakses dari:** [http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TB7-4HVW8PV-1&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&_docanchor=&view=c&_searchStrId=1002990653&_rerunOrigin=scholar.google&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=ada0cba30cced0729ddae17aa9a259ca](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TB7-4HVW8PV-1&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&_docanchor=&view=c&_searchStrId=1002990653&_rerunOrigin=scholar.google&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=ada0cba30cced0729ddae17aa9a259ca)