RISK FACTORS FOR *OPISTHORCHIS VIVERRINI* INFECTION AMONG SCHOOLCHILDREN IN LAO PDR

Sachi Tomokawa[1], Toshio Kobayashi[2], Tiengkham Pongvongsa[3], Bangon Nisaygnang[4], Eiko Kaneda[5], Sumihisa Honda[6], Kazuhiko Moji[7] and Boungnong Boupha[4]

[1]Department of Sports and Health Sciences, Faculty of Education, Shinshu University, Nagano, Japan; [2]Department of Health Development, Graduate School of Health Sciences, Hiroshima University, Hiroshima, Japan; [3]Station of Malariology, Parasitology and Entomology, Savannakhet, Lao PDR; [4]National Institute of Public Health, Vientiane, Lao PDR; [5]Department of Law, Toyo University, Tokyo, Japan; [6]Department of Public Health, Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan; [7]Research Institute for Humanity and Nature, Kyoto, Japan

Abstract. A matched-pair case-control study was conducted to identify factors associated with *Opisthorchis viverrini* infection among primary schoolchildren to develop preventive education. A house-to-house interview of the guardians of 118 children (59 cases and 59 controls) was conducted to collect information about theirs and their children's fish eating habits of 10 locally available fish species. The guardians' knowledge and attitudes about *Opisthorchis viverrini* infection and socio-economic status were asked about. The frequencies of eating fish did not differ between cases and controls. However, cases ate raw fish more frequently than controls (5.1 *vs* 1.2 times monthly). The frequency of eating raw "pa-xiew" was most strongly related to infection (OR 2.47; 95%CI 1.05-5.82). Infection was significantly associated with the children's experiences of eating raw fish (OR 7.48; 95% CI 1.45-38.69), frequency of eating raw fish by their guardians (OR 1.26; 95% CI 1.04-1.53) and maternal educational and career (OR 0.76; 95% CI 0.62-0.94). To prevent infections it is necessary to prevent the fish from becoming infected and to avoid eating raw fish. Education should focus on the children and their guardians to promote better eating habits.

Keyword: *Opisthorchis viverrini*, risk factors, schoolchildren, Lao PDR

Correspondence: Sachi Tomokawa, Department of Sports and Health Sciences, Faculty of Education, Shinshu University, 6-ro Nishi nagano, Nagano City, Nagano, 380-8544, Japan.
Tel: +81 026 138 4167; Fax: +81 026 138 4167
E-mail: sachitjp@hotmail.com