

## Risk factors for rectum cancer: a hospital-based case control study in northeast Thailand

Kirati Poomphakwaen<sup>1</sup>, Supanee Sriamporn Promthet<sup>2</sup>,  
Nopparat Songserm<sup>3</sup>, Surapon Wiangnon<sup>4</sup>, Shinkan Tokudome<sup>5</sup>

<sup>1</sup>Department of Public Health, Faculty of Science and Technology, Loei Rajabhat University, Thailand, <sup>2</sup>Department of Epidemiology, Faculty of Public Health, Khon Kaen University, Thailand, <sup>3</sup>Department of Community Health, Faculty of Science, Ubon Ratchathani Rajabhat University, Thailand, <sup>4</sup>Cancer Unit, Faculty of Medicine, Khon Kaen University, Thailand, <sup>5</sup>National Institute of Health and Nutrition, Japan



**Kirati  
Poomphakwaen**

**Background:** Rectum cancer is rare in developing countries, in contrast to the high incidence rates in European countries, North America, Australia and Japan. In Thailand, the estimated total of 4,789 new cases of rectum cancer in 1990 with male: female ratio of 1.25: 1. The annual age-standardized incidence rate of rectum cancer in Thailand is 3.6 and 2.7 per 100,000 in males and females, respectively. This study aimed to study risk factors for rectum cancer in Northeast Thailand, a low incidence area.

**Methods:** The study was a hospital-based case-control study, conducted during 2002-2006. There were 112 rectum cancer cases and 112 age and sex matched controls included in this study. Information was collected using a structured-questionnaire. Associations between interested variables and rectum cancer were assessed using conditional logistic regression.

**Results:** There were associations between history of having had hemorrhoid and habit of defecation and rectum cancer. Subjects with having hemorrhoid had higher risk of rectum cancer (adjusted OR=6.26; 95% CI: 1.69-23.15). Those who having had frequent constipation had a high risk of rectum cancer (adjusted OR=56.57; 95% CI: 4.48-714.93). Subjects with high consumption of pork had higher risk of rectum cancer with significant at the univariate analysis (OR=2.43; 95% CI: 1.27-4.90), and it is still high risk albeit non-significant at multivariate analysis (adjusted OR=2.14; 95% CI: 0.75-6.14).

**Conclusion:** The incidence of rectum cancer in Thai population is at low level. However the rectum cancer prevention is needed especially encouraging people to have healthy behavior.