

노인에서 H₂ 수용체 길항제의 사용과 위암발생간의 관련성 규명을 위한 코호트내 환자-대조군 연구

김윤이¹, 이승미¹, 윤경은¹, 허대석², 정귀옥³, 백지은⁴, 박병주^{1,3}

서울대학교 의과대학 예방의학교실¹, 서울대학교 의과대학 내과학교실²,
서울대학교병원 임상의학연구소 임상시험센터³, 서울대학교 자연과학대학 통계학과⁴

Nested case-control study on the association between H₂ receptor antagonist and gastric cancer in the elderly.

Yooni Kim¹, Seung-Mi Lee¹, Kyoung-Eun Yoon¹,
Dae-Seog Heo², Kui-Oak Jung³, Jieun Baek⁴, Byung-Joo Park^{1,3}

Department of Preventive Medicine, Seoul National University College of Medicine¹,
Department of Internal Medicine, Seoul National University College of Medicine², Clinical Trial Center, Clinical Research
Institute, Seoul National University Hospital³, Department of Statistics, Seoul National University⁴

Gastric cancer is the most common cancer in the Korean elderly. Gastric cancer is more popular than other countries in Korea. And histamine-2-receptor antagonists are used very frequently in Korea. Some epidemiological studies suggested that histamine-2-receptor antagonist increases the risk of gastric cancer. But little has been known about this association in the elderly. The aim of this study was to test whether histamine-2-receptor antagonist increases the risk of gastric cancer in the elderly.

The study population were members of the Korean Elderly Pharmacoepidemiology Cohort (KEPEC). KEPEC members are the beneficiaries of the Korea Medical Insurance Corporation(KMIC), living in Pusan and aged 65 years or more (N=23,649). The information on drug exposure including histamine-2-receptor antagonists was collected from the claims data of hospitals between Jan. 1993 and Dec. 1994. The information on the potential gastric cancer cases was collected from the claims data between Jan. 1993 and Dec. 1998. The hospital survey was conducted to confirm the final diagnoses of the potential cases. Well-trained interviewers visited 35 hospitals in Pusan. They abstracted the medical records of potential gastric cancer cases and medical oncologist reviewed these data. The final cancer cases were confirmed by medical oncologist. The information on confounders was collected by questionnaire survey. Every gastric cancer case was matched with 4 non-gastric cancer controls of the same age and gender by random sampling in the KEPEC. Multiple conditional logistic regression model was used to evaluate the risk of gastric cancer after controlling for confounders. The statistical analysis was conducted by SAS ver. 8.1.

52 cases (mean age 74.6 ± 5.33) were identified as the final gastric cancer. 208 controls were selected. 8 cases (15.4%) and 9 controls (4.3%) were exposed to histamine-2-receptor antagonists. The crude OR(odds ratio) was 4.0 (95% CI: 1.47-11.00). After adjusting for existence of heart burn, body shape, total smoking dose, insomnia and medication history, adjusted OR was 5.1 (95% CI=1.72-14.99). When histamine-2-receptor antagonist was administrated by oral route, crude OR was 7.5 (95% CI: 1.73-32.72). On the other hand, crude OR was 4.5 (95% CI: 1.39-14.69) when it was administrated by injection.

The use of histamine-2-receptor antagonists increased the risk of gastric cancer in the Korean elderly. This finding supports the hypothesis that achlorhydria induced by histamine-2-receptor antagonist increases the risk of gastric cancer.