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糖尿病與發生胃癌風險一健保資料庫分析 Diabetes and Risk of Subsequent Gastric Cancer-Based on National Health Insurance Research Database

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Background: Épidemiological evidences on the association between diabetes and subsequent development of gastric cancer are controversial. This population-based retrospective cohort study investigated subsequent risk of gastric cancer for diabetic patients.

Methods: From claims data of universal health insurance of Taiwan, we identified 19625 persons aged ≥20 years newly diagnosed with diabetes during 2000-2005. A comparison group (N = 78500) frequency matched with age, sex and calendar year was randomly selected from people without diabetes. Incidence and hazard ratios (HR) of gastric cancer were ascertained during the follow-up period until 2008. We also explored associations of antidiabetic medicines with incidence of gastric cancer.

Results: During the follow-up period, 47 subjects in the diabetic group and 216 subjects in the comparison group experienced gastric cancer, with the incidence rates of 4.34 and 4.86 per 10000 person-years, respectively. During the first four years of follow-up, the incidence of gastric cancer was relatively low in diabetic patients (adjusted HR = 0.63, 95% CI = 0.42-0.97). However, after that time, the diabetic group had 76 % (95% confidence interval (CI) = 1.06-2.91) higher risk of developing gastric cancer than the comparison group. In diabetic patients, alpha-glucosidase inhibitors was associated with significantly decreased risk of gastric cancer (adjusted HR = 0.38, 95% CI = 0.15-0.96).

Conclusions: Our findings suggested that diabetes is associated with increased risk of developing gastric cancer in subjects with diabetes after 5 years or more of follow-up.

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台灣某非肥胖族群中心性肥胖與糜爛性食道炎之相關性研究 The Relationship between Central Obesity and Erosive Esophagitis in a Non-obese Taiwanese Population

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AIMS: There has been an increasing prevalence of erosive esophagitis in Asia, which might lead to development of Barrett's esophagus and esophageal adenocarcinoma. In the general population, obesity and central obesity as potentially modifiable risk factors have been known to promote erosive esophagitis besides male gender, hiatus hernia, alcohol consumption, and smoking. However, there were no studies targeting on non-obese subjects. The purpose of this study was to investigate the association between central obesity and erosive esophagitis in a non-obese population.

METHODS: Totally, 11931 subjects underwent upper gastroenteroscopy as a part of a routine health check-up from July 1997 to October 2007. A total of 5826 non-obese subjects with body mass index (BMI) less than 27 kg/m² were included for final analysis after excluding the subjects with esophageal or gastric cancer, current medication of gastrointestinal disease, heart disease, arrhythmia, asthma and arthritis. Central obesity was defined by a waist circumference (WC) greater than 90cm in male and 80cm in female. Overweight was defined as BMI of 24-26.9 kg/m². The Los Angeles classification proposed at the World Congress of Gastroenterology in 1994 was adopted to determine the presence of erosive esophagitis.

RESULTS: A total of 1096 (18.8%) subjects had erosive esophagitis. Compared with subjects without erosive esophagitis, those with erosive esophagitis were likely to be male, and had higher BMI, WC, diastolic blood pressure, fasting plasma glucose, uric acid, creatinine, triglyceride, and higher prevalence of hiatal hernia, overweight, central obesity, hypertriglyceridemia, current tea drinking, smoking, and alcohol drinking. Multivariate regression analyses revealed the significantly associated factors of erosive esophagitis were overweight, hypertriglyceridemia, hiatal hernia and current alcohol drinking. After substituting overweight with central obesity as an independent variable, central obesity remained a significantly positive association with erosive esophagitis.

CONCLUSIONS: Even in the non-obese population, overweight and central obesity still increase the risk of reflux esophagitis, although obesity has been considered as a well-established risk factor of reflux esophagitis.