

ASSOCIATION BETWEEN GASTRIC EPITHELIAL DYSPLASIAS AND GLUCOSE, CHOLESTEROL IN KOREAN POPULATION

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Background/Aims : A well-defined carcinogenic sequence evolving through inflammation-metaplasia-dysplasia-cancer typically precedes the development of gastric adenocarcinomas. Gastric epithelial dysplasia (GED) is also a marker of risk of adenocarcinomas. To examine the relationship between obesity, serum glucose, diabetes and lipids and risk of GED in men and women in Korea.

Methods : A total of 256 Korean subjects aged ≥ 20 years were assessed by BMI, waist circumference, total cholesterol, LDL-cholesterol, HDL-cholesterol, triglycerides, serum glucose, HbA1C, microalbuminuria. GED group (N=128) and age-, sex-matched control group (N=128) were enrolled retrospectively.

Results : In the multivariate analysis, three of the variables studied (total cholesterol, LDL-cholesterol, fasting glucose) had a statistically significant relationship with GED. The risk of GED increased with modest-LDL-cholesterol level (LDL 130-159 mg/dL)(age- and sex-adjusted relative risk [RR], 0.228; 95% confidence interval [CI], 0.060-0.868; $p = 0.030$) and modest glucose level (glucose 100-125 mg/dL)(RR, 2.056; 95% CI, 1.034-4.090; $p = 0.040$). The risk of GED increased with increasing total cholesterol level (RR, 7.362; 95% CI, 1.467-36.957; $p = 0.015$).

Conclusions : Our findings suggest that a modest increase in LDL and modest increase in glucose are risk factors for GED and high total cholesterol level is an independent risk factor for developing GED.