

로 조사되어(위암 32.1%, 대장암 29.1%, 유방암 14.1%, 자궁암 10.8%), 엄밀한 의미의 조기 검진으로 보기 어려웠다. 암 검진을 받지 않은 주된 이유는 60%이상에서 '증상이 없어서'라고 응답하고 있어 암 검진의 기본 의미에 대한 이해가 부족하였다. 한편 미수검 이유는 고령으로 갈수록 경제적 부담이 차지하는 비중이 높아졌다. 결론: 본 조사에서 분석된 암종별 검진 수검률은 선행 연구에 비해 전반적으로 높은 경향을 나타내고 있다. 본 조사를 통해 보다 적극적인 국가 차원의 암 검진 홍보의 필요성을 확인할 수 있었다. 향후 암 검진 수검률의 지속적인 모니터링을 통해 국가 암조기검진사업의 효과에 대한 적절한 평가가 요구된다.

KSPM-178

질산염과 항산화비타민 섭취가 위암 발생에 미치는 영향: 환자-대조군 연구

The effect of nitrate and antioxidant vitamins intake on gastric cancer : a case-control study

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Study objectives: Metabolites of nitrate, not nitrate per se, are known carcinogens. Nitrate involves in the formation of the carcinogenic N-nitroso compounds by reacting with secondary amines or amides, after reducing into nitrite. On the contrary, it has been suggested that dietary antioxidant vitamins(vitamin C, vitamin E, and carotenoids) protect against gastric cancer(GC) by inhibiting the intragastric formation of N-nitroso compounds. Therefore, we assessed the joint effect of nitrate and antioxidant vitamins from foods on gastric cancer through a case-control study in Korea.

Subjects and Methods: Trained dietitians interviewed 136 cases histologically diagnosed with GC and the same number of sex and age-matched controls by using quantitative food frequency questionnaire. Nitrate/nitrite values used in this study were taken from data analyzed by Kim and Yoon(2003) in Korea. And, the presence of H. pylori infection was determined by enzyme immunoassay serology test.

Results: The males of the subjects were 68.4% and mean age of the subjects was 57.3.9 years. A high intake of nitrate per se was not a risk factor of GC (OR=0.76, 95% CI=0.38-1.55). This result can be explained by the fact that the major food sources of nitrate were vegetables, especially Baiechu kimchi, which also have a high concentration of antioxidant vitamins and has been considered as an anticarcinogenic factor. After adjusting the intake of Baiechu kimchi and antioxidant vitamins, high intake of nitrate showed the increased tendency on the GC risk (OR=2.0, 95% CI=0.71-5.64). In the analysis for assessing the joint effects of nitrate and antioxidants intake, a significant decrease of GC risk was observed in the combination of low nitrate and high β -carotene(OR=0.12, 95% CI=0.03-0.60), compared with persons with high nitrate and low β -carotene intake. The test for an interaction between nitrate and anti-

oxidant vitamin was not significant.

Conclusion: High intake of antioxidant vitamins may contribute to the lessening of GC risk by counteracting the effect of nitrate. Therefore, the affluent intake of various foods, especially fresh vegetables and fruits containing a high level of antioxidants and other beneficial ingredients, is a key to prevent the incidence of GC.

KSPM-201

Intake of Milk and Calcium and The Risk of Breast Cancer In Korea

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목적: The role of milk in developing breast cancer is controversial. Several recent studies suggest an inverse association between milk and calcium intake and the risk of breast cancer. The data are still sparse to make any conclusion. We conducted a hospital based case-control study during 1998-2004 to investigate the association between the intake of milk and calcium and the risk of breast cancer in Korean women.

방법: Cases were newly diagnosed and pathologically confirmed, and the controls were non-cancer patients recruited from 7 clinical departments in the same hospital. The age range was between 30 and 70 years old. Participants were interviewed for dietary intake using 94 item food-frequency questionnaire. Total calorie and nutrient calculation was based on the Korean food composition table. Energy adjusted nutrient intakes were calculated using the residual method. We excluded those who reported total calories >3500 kcal/day or <500 kcal/day. A total of 1,371 breast cancer cases and 927 controls were included in the analysis. Age-adjusted (aOR) and multivariate odds ratios (mOR) and 95% confidence intervals (CI) were estimated by unconditional logistic regression.

결과: The mean intake of total milk among controls was 99.4g/day. Compared to those who didn't drink milk, those who drank milk>1/day had lower odds of having breast cancer (aOR = 0.76, 95%CI=0.61-0.94). This negative association sustained after adjusting for age, height, body mass index, age at menarche, history of benign breast cancer, family history of breast cancer, duration of education, smoking, alcohol intake, number of full term pregnancy, menopausal status, postmenopausal hormone use, and calorie intake(mOR = 0.72, 95%CI=0.57-0.90, p-trend=0.009). When we stratified the data by menopausal status, the negative association sustained in premenopausal women (922 cases, mOR=0.73, 95%CI=0.55-0.96, p-trend=0.02), but attenuated in postmenopausal women (378 cases, mOR=0.76, 95%CI=0.49-1.17, p-trend=0.33). For calcium intake, compared to those who took <=400mg/day, those who took >800mg/day had lower odds of having breast cancer (mOR=0.67, 95%CI=0.48-0.93).

고찰: Higher intake of total milk and calcium may have negative association with the risk of breast cancer in Korea. The association for total milk