Genetic polymorphisms and risk of oral cancer

Type: Meeting Abstract

Content:

Objectives: This study was done to investigate the role of single nucleotide polymorphisms(SNPs) within genes of phase I (CYP1A1) and phase II (GSTM1, GSTT1,GSTP1) of the xenobiotic metabolism and its association with oral cancer risk.**Methods**: An unmatched case-control study was conducted using 207 newly diagnosed oral cancer patients and 117 non-cancer subjects selected from the OCRCC database. Peripheral blood was obtained from consented individuals and the CYP1A1, GSTM1, GSTT1 and GSTP1 genotypes were determined using polymerase chain reaction (PCR) and restriction enzyme digestion (RFLP). Simple and multiple logistic regression yielding odds ratio (OR and aOR) were employed to measure the association between genetic polymorphisms and risk of oral cancer. **Results**: In comparing cases and controls for CYP1A1, GSTM1 and GSTT1 polymorphism, the OR was 0.84 (95% CI 0.534 - 1.330), 0.99 (95% CI 0.627 - 1.554) and 0.87 (95% CI 0.541 - 1.388) respectively. However, the adjusted OR for GSTP1 polymorphism, as compared to the wild-type, was 0.43 (95% CI 0.221 - 0.837). It was noted that polymorphism of GSTP1 conferred a 57% reduction in risk of oral cancer as compared to individuals with the GSTP1 wild type genotype. Meanwhile individuals with combination of betel quid chewing habit and/or GSTP1 polymorphism has 1.6 times the risk of oral cancer although it was not statistically significant (95% CI 0.974 - 2.635). **Conclusions**: Analysis suggested that polymorphism of GSTP1 seems to have protective effect on the risk of oral cancer

Author	Zaini, Z. M. ; Karen-Ng, L. P. ; Cheong, S. C. ; Gurdeep, S. M. ; Yuen, K. M.; Tay, K. K. ; Jalil, N. ; Ismail, S. M. ; Jallaluddin, A. ; Zain, R. B.
Source	Oral Diseases
ISSN	1354-523X
DOI	-
Volume	16
Page	522-523
Year	2010

Keyword:

Oral squamous cell carcinoma, OSCC, lichenoid lesions, lichen planus, oral cancer, oral tumours, pemphigus, traumatic eosinophilic granuloma, aphthous ulcers, oral mucosal lesions, betel chewers mucosa, betel quid related lesions, betel quid, areca quid, tobacco quid, oral cancer screening, training and calibration, early detection, oral cancer awareness, biobanking, tissue bank, databank, oral cancer, tissue bank, research credibility, research ethics.

Please Cite As:

ZAINI, Z. M., KAREN-NG, L. P., CHEONG, S. C., GURDEEP, S. M., YUEN, K. M., TAY, K. K., JALIL, N., ISMAIL, S. M., JALLALUDDIN, A. & ZAIN, R. B. 2010. **Genetic polymorphisms and risk of oral cancer**. *Oral Diseases,* 16**,** 522-523.

URL:

- http://apps.webofknowledge.com Search Via Web of Science Accession Number: 000281287500041