Association between NAT1 and NAT2 and risk of oral pre-cancer and cancer in North India

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Background: Two N-acetyltransferase isozymes, NAT1 and NAT2, are polymorphic and catalyze both N-acetylation (usually deactivation) and O-acetylation (usually activation) of aromatic and heterocyclic amine carcinogens.

Objective: To evaluate the association of NAT1 and NAT2 polymorphisms and its susceptibility in oral cancer patients in North Indian population.

Methods: A total of 250 patients with oral cancer and 250 healthy volunteers were genotyped for the NAT1 and NAT2 polymorphism. Genotypes were identified by polymerase chain reaction (PCR) and restriction fragment length polymorphism (RFLP). Genotype frequencies were evaluated by Chi-square test, odds ratio (OR) and relative risk (RR).

Result: NAT1 and NAT2 polymorphism was significantly associated with oral cancer patients as compared to healthy volunteers.

Conclusion: We conclude that the NAT1 and NAT2 polymorphism is significantly associated with oral cancer.

Biography
Shalini Gupta is the Associate Professor, Department of Oral Pathology & Microbiology, King Georges Medical University, Lucknow, India. She had University Merit Scholarship and got fourteen Gold Medals. She has involved with various research projects & reviewer in various journals. She has written two books and published around 50 papers in reputed journals and serving as an editorial member of many reputed journals

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