PULSUS
WWW.PULSUSCONFERENCE.COM
SciTechnol

Shalini Gupta, J Clin Exp Oncol 2018, Volume 7
DOI: 10.4172/2324-9110-C1-007

23rd International Conference on

Cancer Research & Pharmacology

March 26-27, 2018 Edinburgh, Scotland

Shalini Gupta

King George's Medical University, India

Genetic polymorphism of Tumor Necrosis Factor alpha (TNF-α) and Tumor Necrosis Factor beta (TNF-β) genes and risk of oral pre cancer and cancer

Oral cancer is one of the eight most common cancers in the world and occurs more often in males in developing countries than developed countries. Oral precancereous lesions, a benign morphologically altered tissue that has a greater than normal risk of malignant transformation such as leukoplakia etc., is also very common. Leukoplakia and submucous fibrosis are early indicators of damage to the oral mucosa with a transformation rate of 2-12% to frank malignancies. Many environmental factors and genetic factors are implicated in the development of oral cancer. Several factors related to angiogenesis, inflammation and thrombosis have also been associated with oral oncogenesis. Such factors previously implicated in cancer, inflammation and thrombotic events are Tumor Necrosis Factor alpha (TNF-α) and beta (TNF-β), which are respectively encoded by TNF-α and TNF-β genes. TNF-α-238G/A is a pro-inflammatory multifunctional cytokine produced by macrophages. It plays an important role in the regulation of immune response since its increase after traumatic injury generates a cytokine cascade resulting in activation, proliferation and hypertrophy of mononuclear and phagocytic cells. TNF-α-238G/A has been implicated in the pathogenesis and progression of various malignancies. The biological activities of TNF-α-238G/A and the fact that its gene is located within the major histocompatibility complex have suggested that polymorphisms in this locus may be associated with autoimmune, infectious and neoplastic disorders. In light of the recently found contribution of inflammation-related factors to oral cancer, the possible correlation of Tumor Necrosis Factor alpha and beta genes (TNF-α and TNF-β) with risk of oral cancer was investigated. A study was done in King George Medical University, Lucknow, India in which a total 250 patients with oral pre cancer and cancer, total 250 healthy volunteers were genotypes for the TNF-α (-238) G/A andTNF-β(-252) A/G gene polymorphism. Genotypes were identified by Polymerase Chain Reaction (PCR) Restriction Fragment Length Polymorphism (RFLP). Genotype frequencies were evaluated by Chi-square test and Odds Ratio (OR) relative risk. TNF-α (-238) G/A, TNF-β(-252) A/G polymorphism were significantly associated with oral pre cancer and cancer patients as compared to healthy volunteers (GA, p=0.0050*, AG, p=0.497*). We found that the TNF-α (-238) G/A, TNF-β(-252) A/G polymorphism were significantly associated with oral pre cancer and 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

sgmds2002@yahoo.co.in

Notes: