Effect of NBS1 gene polymorphism on the risk of cervix carcinoma in a northern Indian population

Shekari M, Sobti R C, Kordi Tamandani D M, Kaur P and Suri V
Panjab University, India

Cervical cancer is one of the most common neoplastic diseases affecting women, with a worldwide incidence of almost half a million cases. A history of smoking and use of oral contraceptives have been confirmed to be risk factors for cervical cancer. Genetic susceptibility and immune response, especially impaired cellular immune response, may well be related to the development of cervical cancer. NBS1 is one of the key proteins participating in the recognition and repair of double-strand breaks that may lead to genomic instability and cancer if unrepaired. The objective of the present study was therefore to investigate NBS1 Glu185Gln gene polymorphisms and the risk of cervix cancer in a northern Indian population. We found that passive smokers having particular NBS1 genotypes (Glu/Gln, Gln/Gln or Glu/Gln + Gln/Gln) have an increased risk of developing cervix cancer (OR 5.21, p=0.000001; OR 4.60, p=0.001; OR 5.10, p=0.0000001, respectively). The risk was increased 2.4-fold in oral contraceptive users with a Glu/Gln genotype. We conclude that the risk of cervical cancer is increased in passive smokers and in users of oral contraceptives with certain NBS1 genotypes.

Biography
Shekari M completed his PhD degree from Punjab University Chandigarh, India in the field of Human Molecular Genetics. He is working as Faculty member in Department of Medical Genetic Hormozgan University of Medical Science Bandar-Abbas -Iran. He has published more than 15 papers in presumed journals. His research interest is in cancer genetic and most of his work is published on cervix carcinoma.

mshekari_ch@yahoo.com