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

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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<0.001; OR 4.60, P<0.001; OR 5.10, P<0.001, 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 has completed MD degree from Kerman University of Medical Sciences, Iran and PhD studies from Punjab University, Chandigarh, India. He is the Chancellor of Hormozgan University of Medical Sciences, Iran. He published more than 21 papers in reputed journals in the field of Cervix Carcinoma as well as Cancer Genetics.

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