Association of genetic polymorphism of the DNA base excision repair gene (APE-1 Asp/148 Glu) and HPV type (16/18) with the risk of cervix cancer in north Indian population

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Cervical cancer is one of the most common neoplastic diseases affecting women with a combined worldwide incidence of almost half a million new cases. Reduced DNA repair capacity (DRC) can render a high risk of developing many types of cancer; including cervical cancer. Polymorphisms in DNA repair genes may contribute the genetic instability and carcinogenesis. Smoking experience and use of oral contraceptives have been confirmed to be risk factors for cervical cancer. The purpose of the present study was therefore to investigate APE-1 genotypes (Asp/Asp, Asp/Glu, Glu/Glu) with different histological subtypes in cases compared with controls. It has been observed that Asp/Glu with Glu/Glu genotypes that combined we observed statistically significant with protective effect for developing of cervix cancer (OR-0.51, 95% CI 0.31-0.83, p-0.006). The combined Asp/Glu with Glu/Glu genotypes who were using oral contraceptives was shown to be statistically significant with reduced risk of cervical cancer (OR-0.22 95% CI- 0.11-0.47, p-0.0002). It has been suggested that significantly correlation between HPV 16 and users of oral contraceptives in certain APE-1 genotypes with reduced risk in developing cervix cancer. In conclusion we observed statistical significant association with reduced risk of cervix cancer in APE-1 with different genotypes, though on the other hand, in association between HPV type 18 and those having SCC highly increased the risk of cervical cancer was observed.

Biography
Shekari M currently working as an Associated Professor at Department of Medical Genetics, Hormozgan University of Medical Sciences, Bandar Abbas, Iran.

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