

2nd International Conference on Pharmaceutics & Novel Drug Delivery Systems

20-22 February 2012 San Francisco Airport Marriott Waterfront, USA

TITLE

Lack of Association Between GSTT1 Polymorphism and SCEs Response Among Healthy Individuals and Myeloid Leukaemia Patients

Malik Shaukat .I

Muhammad Ali Jinnah University, Pakistan

The objective of the present work was to verify whether genetic polymorphism in the detoxification gene GSTT1 influences the endogenous genomic sensitivity in healthy individuals and myeloid leukemia patients. The cytogenetic endpoint used was the endogenous sister chromatid exchanges (SCEs) as analyzed by means of the highly sensitive immunochemical staining method using a FITC-conjugated anti-BrdU antibody. The method was chosen in an effort to eliminate the possible BrdU-induced SCEs that result from the BrdU used in the standard FPG method. For this purpose, peripheral blood lymphocytes from 42 healthy non-smoking donors and 15 myeloid leukemia patients at diagnosis were analysed for SCEs. The presence or absence of the homozygous deletion in GSTT1 gene was determined in peripheral blood cells using a multiplex-PCR method. The results obtained do not show any association between the GSTT1-null genotype and the endogenous SCE-frequencies in leukemia patients with respect to the healthy individuals. Moreover, the results indicate that the frequency obtained in the GSTT1 genotypes in leukemia patients is comparable to the frequency of the healthy population. In summary, the results of this pilot study indicate that the endogenous SCEs induction in metaphase peripheral blood lymphocytes of myeloid leukemia patients is independent from the GSTT1 genotype and also from the donors' gender.

Biography

Shaukat Iqbal Malik has completed his PhD at the age of 37 years from National and Kapodistrian University of Athens & Cancer Cytogenetic and EH Laboratory, NCSR Demokritos, Athens and postdoctoral studies from LC Cancer Center, University of North Carolina, CH. and second from: NHEERL, Cancer BB at US Environmental Protection Agency RTP, NC. He is working as Associate Professor in M. A. Jinnah University; Islamabad. He has published more than 20 papers in reputed journals and serving as an editorial board member of reputed journals. He has presented his work around the world including USA, Europe, South Africa, Middle East and Asia.