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**ANALYSIS OF CHROMOSOME ABERRATION, SISTER
CHROMATID EXCHANGE, MICRONUCLEI AND SINGLE CELL
GEL ELECTROPHORESIS IN HUMAN LYMPHOCYTES EXPOSED
IN VITRO TO BISPHENOL A AND DIETHYLSTILBESTROL**

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Endocrine disruptors have been implicated in carcinogenesis in animal studies, but carcinogenic effects on human remain controversial. In order to examine the genotoxicity of two common endocrine disruptors, Bisphenol A and Diethylstilbestrol, cytogenetic endpoints including chromosome aberration(CA), sister chromatid exchange (SCE), micronuclei (MN) analyses and DNA damage by single cell gel electrophoresis (SCGE) were assayed. The effects of Bisphenol A and Diethylstilbestrol on the frequencies of CA and MN were increased in a dose-dependent manner and that of Bisphenol A was more significant by Kendall' τ test. Bisphenol A and Diethylstilbestrol also increased the frequency of SCE. Bisphenol A and Diethylstilbestrol induced DNA damage in a dose-dependent manner and the DNA damage induced by Diethylstilbestrol in human blood lymphocytes was more significant. The results suggested that Bisphenol A and Diethylstilbestrol show significant dose-response relationship in MN, CA, SCE and SCGE *in vitro* human lymphocyte cells.