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P123. ASSESSMENT OF THE GENOTOXICITY OF BUTYLPARABEN IN HUMAN LYMPHOCYTES USING THE COMET ASSAY AND CYTOKINESIS-BLOCK MICRONUCLEUS TEST

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As a member of the paraben family butylparaben is one of the most common preservative additive in foods, pharmaceuticals and personal care products because of its antimicrobial and antifungal activities. In this study, the genotoxicity of butylparaben was investigated in human peripheral blood lymphocytes by using cytokinesis-block micronucleus (CBMN) test and Comet assay. In addition, the cytokinesis block proliferation index (CBPI) was measured for cytotoxicity. Human lymphocytes were exposed to butylparaben different concentrations (10, 25, 50 and 100 µg/ml) for 24 and 48 hours at 37°C in CBMN test. For comet assay freshly isolated human lymphocytes were exposed butlyparaben (10, 25, 50 and 125 µg/ml) for an hour. Decreased CBPI-values was observed at all dose levels. A dose and time dependent increase of the micronucleated (MN) cell frequency was observed. In comet assay butlyparaben increased the DNA migration in a dose-dependent manner. The results demonstrated that butylparaben has genotoxic potential on human lymphocytes.

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