

P56. INVESTIGATION OF GENOTOXIC ACTIVITIES OF PARABEN IN HUMAN LYMPHOCYTES

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Paraben is a monohydroxybenzoicacid, a phenolic derivative of benzoicacid. That is extensively used as preservatives in the food, pharmaceutical and cosmetic industries due to its antimicrobial characteristics. Paraben's toxic and genotoxic effects are very important for human health because of these compounds is used so much in daily life. The aim of this study to investigate the *in vitro* genotoxic effects of paraben in healthy human lymphocyte cultures. So that the genotoxic effects of paraben were investigated after 24 and 48 hours treatment with cultured human lymphocytes with Cytokinesis Blocked Micronucleus (CBMN) assay and Chromosome Aberration (CA) methods *in vitro*. Also DNA damage was measured using the Comet Assay in isolated human lymphocytes exposed to different concentrations and 1 hour treatment of paraben.

According to the values, paraben caused dose and time dependent increase in MN frequency and dose and time dependent decrease in cell proliferation index (CBPI) in CBMN assay. Also in chromosome aberration assay, paraben induced chromosome breaks and decreased mitotic index all concentrations and all treatment times when compared with control. In the comet assay, significant DNA fragment migration was observed especially in paraben's high doses.