

Mutagenicity of the *Musa paradisiaca* (Musaceae) fruit peel extract in mouse peripheral blood cells *in vivo*

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ABSTRACT. Plants are a source of many biologically active products and nowadays they are of great interest to the pharmaceutical industry. In the present study, the mutagenic potential of the *Musa paradisiaca* fruit peel extract was assessed by the single-cell gel electrophoresis (SCGE) and micronucleus assays. Animals were treated orally with three different concentrations of the extract (1000, 1500, and 2000 mg/kg body weight). Peripheral blood cells of Swiss mice were collected 24 h after treatment for the SCGE assay and 48 and 72 h for the micronucleus test. The results showed that the two higher doses of the extract of *M. paradisiaca* induced statistically significant increases in the average numbers of DNA damage in peripheral blood leukocytes for the two higher doses and a significant increase in the mean of micronucleated polychromatic erythrocytes in the three doses tested. The polychromatic/normochromatic erythrocyte ratio scored in the treated groups was not statistically different from the negative control. The data obtained indicate that fruit peel extract from *M. paradisiaca* showed mutagenic effect in the peripheral blood cells of Swiss albino mice.

Key words: *Musa paradisiaca*; Single-cell gel electrophoresis; Micronucleus test; Peripheral blood cells; Comet assay