



Short Communication

Genotoxic effects caused by indoor exposure to petroleum derivatives in a fuel quality control laboratory

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Genet. Mol. Res. 9 (2): 1069-1073 (2010)
Received February 21, 2010
Accepted March 19, 2010
Published June 11, 2010
DOI 10.4238/vol9-2gmr797

ABSTRACT. We looked for genotoxic effects in laboratory personnel routinely exposed to petroleum derivate compounds in an indoor environment. The exposed group of 21 workers from the Fuel Quality Control Laboratory of the Brazilian Petroleum Agency was matched with a group of 10 people from the staff of the Brazilian Ministry of Health. Chromosome aberrations in peripheral blood lymphocytes, micronuclei in exfoliated cells in the urine and hematological parameters were examined. There was a significantly increased level of chromosome aberrations and micronuclei in the exposed group compared with controls. A high correlation between chromosome aberrations and micronuclei was observed in the exposed group (Spearman rank test, $r = 0.73$, $P = 0.0001$). The hematological parameters in these exposed individuals did not differ from reference values.

Key words: Micronucleus; Chromosome aberration; Biomonitoring; Indoor exposure; Petroleum exposure