

MONITORING OF HUMAN EXPOSURE TO OCCUPATIONAL GENOTOXICANTS

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SUMMARY

The human exposure to genotoxic agents can be detected by using genetic monitoring procedures which is mainly concerned with markers of exposure and effect. Cytogenetic analysis of human peripheral lymphocytes and urine mutagenicity are routinely used in Hygiene Service of the Czech Republic. The review demonstrated the activity of National Reference laboratory and other laboratories in Hygiene Service of the Czech Republic in the problem dealing with monitoring of population exposure to genotoxic substances. Altogether, 7 regional and 15 district laboratories have been in function. Several thousands of occupationally exposed and control persons have been examined by now. The most followed population at risk were those exposed to cytostatics, polycyclic aromatic hydrocarbons, complex mixtures of chemicals, metals and others. The system of genetic monitoring helped to detect the exposure of population at risk to genotoxic contaminants, to use the obtained data for quantification of exposure and for preventive measures application and to control the efficacy of applied regulatory action.

Key words: monitoring, genotoxicity, occupational exposure, chromosome aberrations, urine mutagenicity

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