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BIOLOGICAL INDICATION OF PRODUCTION CONDITION INFLUENCE ON THE STAFF OF STATE SPECIALIZED ENTERPRISE FOR RADIOACTIVE WASTE MANAGEMENT AND DESACTIVATION "COMPLEX" IN CHORNOBYL EXCLUSION ZONE

Results of comparative cytogenetical examination of two groups are presented. First group is staff from two workshops (RAW management and RAW deactivation) of SJE "Complex" in Chornobyl exclusion zone. Second group consists of the persons who had no mutagenic factors influence during their professional activity (conditional control). Classical chromosome analysis method was used. It was found chromosome damages frequency in staff is significantly higher than spontaneous level in conditional control group. Professional experience duration and external exposure integral doses of both workshops staff do not differ. Staff of RAW deactivation workshop, who is additionally influenced by chemical and physical factors, has significantly higher chromosome aberration frequency, particularly due to specific cytogenetical markers of exposure. Correlation between external exposure integral doses and total chromosome aberration frequency, chromosome type aberration frequency, stabile interchromosomal exchanges frequency was found.

Keywords: occupational exposure, chemical factors, chromosomal aberrations, lymphocyte.