

Medical/biological Study (observational study)**Micronucleus assay and lymphocyte mitotic activity in risk assessment of occupational exposure to microwave radiation.**

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Aim of study (according to author)

To investigate the effects of microwave radiation on induction and frequency of micronuclei in peripheral blood lymphocytes of occupationally exposed subjects. The mitotic activity of lymphocytes was also studied.

Endpoints

- genotoxicity/mutation: formation of micronuclei
- cell viability/cell division/proliferation: lymphocyte mitotic activity

Exposure

Field characteristics	Parameters
1.25 - 1.35 GHz exposure duration: continuous	power flux density: 10 $\mu\text{W}/\text{cm}^2$ min value (20 $\mu\text{W}/\text{cm}^2$)

Exposed system:

human

whole body exposure

Methods

Endpoint/Measurement parameters/Methodology

- genotoxicity/mutation: formation of micronuclei
- cell viability/cell division/proliferation: lymphocyte mitotic activity

investigated material: intact cell/cell culture (in vitro)

investigated organ system: immune system

time of investigation: after exposure

Main outcome of study (according to author)

Results showed an increase in frequency of micronuclei as well as disturbances in the distribution of cells over the first, second and third mitotic division in exposed subjects compared to controls.

(Study character: medical/biological study, observational study, full/main study)

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