

Evaluation of ozone genotoxicity by cytogenetics techniques

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Abstract

With the wide spread of ozone medical use, some concern arose about its genotoxicity. For this reason we decided to investigate the genotoxicity of ozone at chromosomal level, studying a group of patients with different diagnosis, treated with ozone by autohemotherapy, during 15 sessions, at a dose of 5 mg. The cytogenetic genotoxicity test utilized were: analysis of types and frequency of chromosomal aberrations (CA), analysis of frequency of sister chromatid exchanges (SCE) and detection of micronuclei in peripheral blood lymphocytes with the cytokinesis blocked by cytochalasin B (MN). No remarkable differences were observed in any of the 3 tests, between the results before and after ozone therapy. It is concluded that ozone treatment by autohemotherapy, in established dosage, has no genotoxic effect proved in a chromosomal level.