

Effect of adriamycin on DNA structure and proliferation of immortal rodent cells

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Effect of the anticancer drug adriamycin on proliferation of immortal rodent cells was estimated by a clonal growth method at two different cell densities. It has been found that cell density influenced cytotoxicity of adriamycin. Lower cytotoxicity was observed at higher cell density. Adriamycin in the range of IC_{50} and IC_{90} concentrations induced cleavage of chromatin in the linker regions in nucleosomes which triggered apoptosis in these cells and resulted in DNA fragmentation. Changes in DNA supercoiled structure were correlated with the significant decrease in cell growth and proliferation.