A Comparative Study on the Genotoxic Effect of Pyrimethamine in Bone Marrow and Spermatogonial Mice Cells

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Pyrimethamine is an antimalarial agent widely used in clinical therapy. We aimed to compare its mutagenic potential in mammalian spermatogonial and bone marrow cells. For studying chromosomal aberrations mice were treated acutely (single treatment) with 4 dose levels of pyrimethamine (5, 10, 20 and 40 mg/kg). Pyrimethamine was found to produce a significant increase in structural chromosomal aberrations after acute treatment in bone marrow cells of mice ($p < 0.001$). It also induced chromosome abnormalities in spermatogonial cells ($p < 0.05$) at the highest dose.

Key words: Pyrimethamine, Spermatogonial Mitosis, Chromosome Aberrations