Cytogenetic studies on the evolution resistance on the offspring and mothers of house mice

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Coumatetralyl is a member of coumarins which are widely used as anticoagulant rodenticides for eradication of rodents. This denotes a high possibility that they contaminated the diet of man and his farm animals this fact alarmed some scientists to study their biological influence. Adult albino mice (Mus musculus) of both sexes weighting (20-25gm) for female, (31-37gm) for male and aged from 8-12 weeks old were used for this experimental study. To investigate the mutagenic effect of anticoagulant rodenticide; coumatrtralyl on the bone marrow cells (chromosomes aberrations assays) of offspring and their mothers and the histopathological effect of the anticoagulant rodenticide; coumatetralyl on (liver, kidneys& lungs) of offspring and their mothers that treated with (1/10 &1/20) LD50 of Coumatetralyl at day 15 (one dose) and days 8 and 15 (two doses) during pregnancy.The results indicated that the rodenticide coumatetralyl which was used in this study has a mutagenic effect on chromosomal and histopathological change on different organs (liver, kidneys & lungs).In conclusion, this rodenticide must be used in a limited scope because it is very dangerous especially during pregnancy and its application in agriculture should be under very tight control.