

Effect of a single dose of malathion on spermatogenesis in mice

Bustos-Obergón, Eduardo

González-Hormazabal, Patricio

Aim: To observe the acute effect of the organophosphorous insecticide malathion on testicular function in mice. **Methods:** The effects of a single dose of malathion [240 mg/kg (1/12 LD 50)] on plasma acetylcholinesterase (ACE) activity, spermatozoa (epididymal cauda counts and teratozoospermia), testis and plasma testosterone concentration) were evaluated at day 1, 8, 16, 35 and 40 after treatment. **Results:** The sperm count was decreased significantly 24 h after treatment and teratozoospermia was increased at day 35 and 40. The height of the seminiferous epithelium and the diameter of tubular lumen were decreased at day 8. The percentage of tubular blockade was increased between day 8 and 35. A decrease in testosterone plasma level was observed at day 16 after treatment. **Conclusion:** Malathion damages male reproduction. The depletion of seminiferous tubules and the increase in teratozoospermia may be a genotoxic damage to the renewing spermatogonia, but the possibility of spermatogenic/spe