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Retinoic Acid Teratogenicity in Mouse Embryo

Alghareeb Maha R.1 , Alani Louay M.1, Alhadad Nedhal I2

Vol. 20 No. 4 (2020): Medico-Legal Update

Keywords:

Neural tube defects, Spina bifida, Exencephaly, Retinoic acid, Teratology.

Abstract

The present study was designed to explore furthermore the relationship between abnormalities in mice which were used as a model to study the (NTDs) in human beings and retinoic acid.

The study was conducted on the Swiss white mice, with 40 females and 10 males. Females that have the vaginal plug are isolated in separate plastic cages to study the teratogenic effect of retinoic acid in the concentration of 15, 25, 35 or 45 mg/kg live body weight which were administered intraperitoneally. Also, folic acid was used with dose 35mg/kg to test the preventive effect against neural tube defects. Retinoic acid doses of 15 mg/kg, 25 mg/kg and 35 mg/kg caused different abnormalities in percent of 20% including (Small size with unclear face, NTDs), 32% including (NTDs, prolonged embryos and deformation eye and ears), 68% including (NTDs, prolonged embryos and deformation eye and ears and small size) respectively.

**While the dose of 45 mg/kg
caused 100% reabsorption.**