Marina E Poluektova et al., J Clin Toxicol 2014, 4:4
http://dx.doi.org/10.4172/2161-0495.S1.013

OMICS Group Conferences
Accelerating Scientific Discovery

3rd International Summit on
Toxicology & Applied Pharmacology
October 20-22, 2014 DoubleTree by Hilton Hotel Chicago-North Shore, USA

Comparative assessment of the offspring of female rats obtained long-term after cyto-static influences of different types

Marina E Poluektova, T G Borovskaya, A V Vyshuzhanina and V E Goldberg
The Goldberg Research Institute of Pharmacology, Russia

There are numerous cases of childbirth by women who have had a cyto-static influence. Clinical observations indicate that this offspring must be considered as the risk group. The aim of the work is to assess comparatively the toxic influence on offspring female rats interbred late after administration of cyto-static drugs, from different groups: anthracycline antibiotics (epirubicin), platinum complexes (cisplatin, carboplatin), inhibitors of topoisomerase activity (etoposide), taxanes (paclitaxel). Anti-tumor drugs were administered to female rats in single intravenous, maximally tolerable doses. Status of offspring was assessed in both antenatal period (state of viscera, processes of ossification) and postnatal period (the rate of physical development, the formation of sensory-motor reflexes, trainability and adaptive behavior). Gross visible malformations were obtained in 2 cases: against cisplatin and etoposide. The toxic effects of drugs on progeny are found to be decreased in the following sequence: carboplatin – paclitaxel – etoposide-cisplatin – epirubicin. The severity of the toxic effects depends not only on the type of cyto-static influence, but also on the term of conception after drug administration.

Biography

Marina E Poluektova has graduated from the Tomsk State Medical University in 1992 and started to work at the Goldberg Research Institute of Pharmacology. She completed her Ph.D. in biology at the age of 27 years. The work is focused on damaging effects of anti-tumor drugs on reproductive system and the offspring of rats.

repropharm@yandex.ru