

The Turkish Journal of Occupational / Environmental Medicine and Safety

Vol:1, Issue Supplement 1 Web: http://www.turjoem.com ISSN: 2149-4711 Poster Presentation

P116. BIOCHEMICAL AND HISTOPATHOLOGICAL EFFECTS OF *IN UTERO* EXPOSURE DI-N-HEXYL PHTHALATE AND DICYCLOHEXYL PHTHALATE IN PREPUBERTAL, PUBERTAL AND ADULT STAGES OF WISTAR FEMALE AND MALE ALBINO RATS

Müfide AYDOĞAN AHBAB, Nurhayat BARLAS, Gözde KARABULUT* Hacettepe University, Science Faculty, Department of Biology, Ankara, TÜRKİYE

Effects of maternal di-n-hexyl phthalate and dicyclohexyl phthalate exposure to rats at various doses were investigated during developmental stages.

Pregnant rats were treated by gavage application on gestational days 6-19. The groups were classified as follows: control, vehicle control (corn oil), 20, 100, 500 mg/kg/day DHP and 20, 100 and 500 mg/kg/day DCHP. Female and male pups were classified for developmental stages as prepubertal, pubertal and adult. End of the study, hematological and biochemical parameters in serum were determined. In addition, weights of liver, kidney, spleen, lung, brain, heart, stomach and thymus were measured organ/body weight ratios were calculated and tissue sections examined histologically.

In toxicological tests, low and high treatment doses (20 and 500 mg/kg/day) of DHP and DCHP caused a significant increase of granulocyte and lymphocyte percent. In prepubertal and pubertal rats, hematocrit value of the 500 mg/kg/day DCHP groups were increased but, in adult rats were decreased compared with the controls. In all DHP treatment groups AST, ALT and LDH serum levels were increased significantly. In histopathological examinations, especially, high dose of DHP and DCHP treatment group, some histopathological findings were observed in liver, kidney, spleen and lung tissue.

This study showed that DHP and DCHP had significant effects in female and male rats during developmental stages.