The Turkish Journal of Occupational / Environmental Medicine and Safety

Vol:2, No:1 (1), 2017 Web: http://www.turjoem.com ISSN : 2149-4711

P87. SUBCHRONIC TOXICITY OF HEAT-INDUCED FOOD CONTAMINANT ACROLEIN IN HEMATOLOGICAL PARAMETERS AND HORMONE LEVELS IN PREPUBERTAL MALE RATS

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Acrolein as a heat-induced food contaminant is a highly reactive α,β aldehyde. It is known to be formed by thermal processing of carbohydrates, amino acids and fats. Its presence was found in fruits and vegetables. Human may expose to acrolein via oral or respiratory and dermal routes. In the present study, our aim is to evaluate subchronic effects of acrolein on hematological parameters as well as serum LH and testosterone levels in male rats.

Weaning Wistar male rats were administered 0.5, 1 and 2 mg/kg/day acrolein orally for 90 days. At the end of the administration, rats were sacrified and blood samples were taken from hearts for analyses. Hematologic parameters were analysed, also serum LH and testosterone levels were measured spectrophotometrically by Elisa method. As a result of acrolein administration, significant alterations were observed in number of leukocytes, percentage of hematocrite, MCH, MCHC, thrombocytes and percentage of PCT. Although alterations were observed in serum LH in acrolein administrated groups, these were not statistically significant. Testosterone levels of acrolien administrated rats were not different from rats in control group.

As a conclusion, we may suggest that subchronic intake of acrolein may cause alterations in hematologic parameters, but not serum LH and testosterone levels.

This research is partially supported by Scientific Research Project Coordination Unit of Hacettepe University (Project no: 010D08601008, 013D04601001).

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