

P189. HUMAN PLASMA OCHRATOXIN A LEVELS AND CORRELATION WITH HUMAN RENAL CANCERS

Mehmet Akif KILIC, Firdevs MOR and Ayşegül KARGI

Akdeniz University, Science Faculty, Department of Biology, Molecular Biology Section, ²Mehmet Akif Ersoy University, Veterinary Faculty, Department of Pharmacology and Toxicology, Medstar Antalya Hospital, Cancer Centre, Medical Oncology, Antalya, Turkey.

Ochratoxin A (OTA) is a mycotoxin produced by a variety of moulds. Dietary exposure to OTA represents a serious health issue in animals and has been associated with several diseases including ochratoxicosis, nephropathy, human endemic nephropathies and human urinary tract tumours. OTA is a renal carcinogenic in rodents and extensive research has been performed in order to relieve its mode of action and relationship with human pathologies. In this study, OTA levels of human plasma samples were determined and the possible relationship between plasma OTA levels and human renal cancers were investigated.

Human plasma samples were collected from 34 health individuals and 33 renal cancer patients during 2013 and 2014. Age mean values and gender distribution were similar for both groups. All samples were stored at -80 until analysed. Plasma OTA levels were determined with well-established method using an FLD-HPLC. OTA standards and samples were read at 333 (excitation) and 443 (emission). LOD and LOQ were 0.03 and 0.1 ng/ml OTA, respectively. Plasma OTA levels and correlation with renal cancer were analysed by SPSS 13.0.

Out of total 67 samples, OTA were quantified in 21 control samples and 26 renal cancer patients (LOQ= 0.1 ng/ml). Plasma OTA mean values were 2.38 ± 2.62 (\pm SD) and 5.04 ± 5.16 for health individuals and renal cancer patients, respectively. OTA mean values for the highest 20% of OTA positive samples were 6.24 ± 2.07 (\pm SE) and 12.9 ± 1.9 for control and renal cancer samples, respectively. OTA plasma levels of tested individuals were found to be higher than some other countries. Statistical analysis showed that there is significant difference between plasma OTA levels of control and cancer patients (P 0.05).

Turkish healthy individual's mean plasma OTA levels are among the highest published OTA levels, just after Bulgaria, Tunisia and Algeria. The higher plasma OTA level of cancer patients indicate that there could be a correlation between OTA exposure and human renal cancer.

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