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P85. TOXICOLOGY OF SYNTHETIC CANNABINOIDS AND THEIR ANALYSIS IN HERBAL MATERIALS

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The existance of herbal abused drugs in the market is not a new problem. Such materials generally consist of plant mixtures with little psychoactive effects. However, the composition of these herbal products has changed into new pyschoactive compounds known as synthetic cannabinoids. Synthetic cannabinoids has taken place in recreational drug use all around the world including Turkey. These substances which have very similar effect to marijuana are globally produced in clandestine laboratories to place on the market. Undesired harmful effect profiles of synthetic cannabinoids have not been studied in humans yet, however there are very limited researches in animals. For this reason, most of knowledge related to their toxicity comes from hospital emergency services and treatment reports obtained in forensic case studies. In recent years, synthetic cannabinoids have gained a great attention of forensic sciences. Compounds having the most insterest to forensic scientist can be typed as JWH, CP, HU, AM, WIN, RCS and recently XLR and UR. Research due to mechanism of cannabis activity has started when molecules with similar structure to Δ9-tetrahydrocannabinol (THC) which is the main psychoactive ingredient of marijuana were first examined. A synthetic analogue of THC, 'HU-210', was first synthesized in Israel in 1988. Though these substances are firstly synthesized for medical research, recently they take place in illicit drug market. The solution of the compounds concerned are dissolved in organic solvents and sprayed onto herbal materials. The goal of this study is to interpret toxicology of synthetic cannabinoids. It is also aimed to offer an identification method using Gas Chromatography-Mass Spectroscopy (GC-MS) for synthetic cannabinoids in herbal products caught by law enforcement.