

PREFACE

The XXII Annual Meeting of Polish Forensic Toxicologists was held in Popowo near Warsaw on 5-6 May 2005. The main themes of the conference were assessment of the influence of addictive substances on the safety of road traffic, and analytical and expert opinion issues linked to toxicological examination of biological material collected from drivers suspected of driving under the influence of drugs. The discussion held during the conference was a continuation of exchange of opinions, which had begun a year earlier during the conference in Karłowo, on the testing of drivers driving vehicles under the influence of psychoactive substances. The main theme of that meeting had been assessment of the state of alcohol intoxication of drivers and selected presentations were published in *Problems of Forensic Sciences*, issue LXVIII. During the conference in Popowo, attention was focused on other substances that can reduce drivers' psychomotor efficiency. The choice of this subject was influenced by Poland's accession to the European Union, necessitating amendment of a whole range of laws and regulations, including those concerning toxicological testing of drivers.

The XXII Conference of Forensic Toxicologists was organised by the Professor Jan Sehn Institute of Forensic Research in Krakow together with the Department of Forensic Medicine of the Medical Academy in Warsaw. About 100 persons attended the meeting, including toxicologists and medical doctors from departments of forensic medicine and toxicology departments of hospitals, and analysts from police laboratories. In addition to the main themes, the conference programme also included, as is the tradition, reports on current research work and expert studies. A methodological and analytical workshop was organised for the first time, its main theme being drug-facilitated sexual assault.

The first session, which was devoted entirely to testing of drivers for the presence of drugs, encompassed 15 papers. The conference began with a plenary lecture given by Dr M. Kała (Institute of Forensic Research), in which the current state of knowledge on the influence of substances acting similarly to alcohol on drivers – prepared on the basis of reports published in the literature as well as own investigations – was presented. Then Prof. R. Wachowiak (Medical Academy in Poznań) talked about diagnostic and interpretation problems resulting from the presence of psychoactive compounds in a car driver's body. The procedure for

testing drivers for the presence of drugs includes examination of saliva samples. Therefore, a number of papers relating to possibilities of saliva utilisation in this field were presented at the conference. The discussed substances were: cannabinoids, morphine and codeine, as well as estazolam, promazine and doxepin. Moreover, a paper on road collisions and accidents caused under the influence of psychoactive agents was presented. Dr M. Kiszka (Medical Academy in Lublin) drew our attention to the risk of diagnostic error connected with the choice of type of blood sample for investigations, i.e. blood sample with addition of agents preventing its coagulation and oxidation or without these additives. Moreover, the possibility of utilisation of hair as a complementary material for testing drivers for the presence of drugs was presented, and quality control tests of the results of analysis of addictive agents in hair in 2004 were discussed.

Among other papers on examination of biological material for psychoactive substances content, a paper on application of the LC/MS technique to determination of bencyclane (Halidor) in biological material, a study on conditions of screening analysis of fourteen classic psychotropic drugs by means of non-aqueous capillary electrophoresis, fentanyl and its analogues in toxicological analysis as well as the identification of by-products of amphetamine synthesis in biological material, aroused particular interest.

As is the tradition, several reports on current studies and expert practice concerned alcohol. Examples of the practical application of a screening algorithm used in diagnostic procedure during investigation of state of intoxication by means of the gas chromatographic method and the results of investigation of hydration degree of post-mortem blood were presented. An attempt to assess the influence of collection time of material from a corpse on the results of determination of ethanol concentration was performed and also the possibility of utilization of fatty acid ethyl esters as markers of ethyl alcohol consumption was discussed.

Other reports on current research and expert practice arousing particular interest were papers concerning denatonium benzoate (Bitrex) – a denaturant of alcoholic beverages, analysis of blood and urine for selenium and arsenic content in patients taking part in a methadone programme and also the use of benzodiazepines in criminal cases. A presentation on drugs used in the treatment of erectile dysfunction ended the conference.

A workshop led by Dr P. Adamowicz (Institute of Forensic Research) on toxicological analysis of drug-facilitated sexual assault was also part of the conference.

The XXII Conference of Forensic Toxicologists was an excellent opportunity to present reports from performed research projects and expert practice. Despite a very tight schedule, participants engaged in content-related discussions – including some very lively exchanges of opinions. Some of the papers read out during the conference have been included in *Problems of Forensic Sciences*, issues LXII and LXIII.

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