Investigations on Driving Under the Influence of Drugs in Vienna: Experiences from 1996 to 2006

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With effect from 1994, §5 of the Austrian road traffic regulations 1960 (StV0) has legalized blood sampling for the use of chemical analysis whenever a driver is suspected to use illicit drugs. Since its amendment in 2002 the sampling of blood by an authorized physician is mandatory and the driver has to give his consent to the procedure, in case any impairment is suspected; otherwise the impairment by the use of narcotic drugs is taken for granted.

In contrast to the legal regulations of the neighbouring countries (The Federal Republic of Germany and Switzerland), where analytical detection limits are taken as evidence for impairment, Austria did not follow this procedure, as only impairment due to recent drug use can be detected, but any impairment in the course of withdrawal symptoms is not reflected by this approach. Moreover the implementation of §24 StVG in Germany in 1997 restricted the number of target analytes to 6 active substances or their metabolites, which justify an administrative offence. According to the Austrian StVO the consumption of all narcotic drugs, defined in the Single Convention and the Austrian SMG respectively, are prohibited, leading to a far larger number of target substances.

After the introduction of immunological testing of urine samples in 1994 to serve internal purposes of the Police Headquarter in Vienna, such urine tests have been applied to drivers under the influence of drugs since 1996. In case of positive results the samples were submitted to an authorized laboratory for confirmation by gas chromatography - mass spectrometry. In 1996 about 100 impaired drivers could be diagnosed. Until 1999 this number increased to about 600 positively identified cases.

Since another amendment in effect from 2002, blood sampling has become obligatory, the analysis of urine samples is possible. Since 2005 such investigations have been performed in ISO 17025 certified laboratories by means of gas chromatography - mass spectrometry, as well as by using liquid chromatography and tandem mass spectrometry.

The presented data compare the number of impaired drivers in Vienna between 1996 and 2000 on the one hand, with those between 2005 and 2006 on the other. For the first time a collective representing more than 1,000 individuals was accessible, with the chemical analysis including quantification of the substances. It turned out that most of the impaired drivers consume more than one substance only and the prevalence of Ecstasy has increased significantly. The investigations prove that the pattern of drug abuse follows their local availability.

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