



Have analysis, the other side of the moon



Prevalence of driving under the influence of alcohol or drugs in road accidents: a **three-years retrospective observational study in Verona and Vicenza districts**

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Introduction and purpose: The Italian law 41/2016 has introduced road homicide and road injuries crimes strongly increasing the penalties provided for when these crimes are committed under the influence of alcohol or drugs. Following the approval of the law 41/2016, the Veneto Region created a Regional Operative Model, identifying three operative regional centers (C.O.R.) responsible for the toxicological analyses of the traffic accidents occurring in Veneto.

The aim of the present work was the evaluation of the toxicological data of the road accidents cases received by C.O.R. Verona in the period 2018-2020, also to verify the impact of law 41/2016 on the phenomenon.

Materials and methods: biological samples were tested for alcohol (BAC) by HS-GC-FID and screened for drugs and psychotropic substances by immunoassay, with confirmation of positivity by GC-MS or LC-MS. The data collection database was created with Microsoft Office Access; statistical analysis was performed with STATA software.

Results and discussion: the study analyzed a total of 5324 cases. Those who tested positive for alcohol were 20.6%. Of these, 80% had a BAC above the legal limit of 0.50 g/L. The data looked comparable with those of a similar study carried out in the same district before the enactment of law 41/2016 [1]. The analysis of blood and urine samples showed 12.6% positivity for illicit drugs and 7.4% for benzodiazepines.

Conclusions: the study has shown that about one-third of the traffic accident cases were correlated with the use of alcohol and/or licit or illicit psychotropic drugs.