

A Study of Blood Alcohol Concentration in People Arrested for Various Offences and Its Demographic Pattern

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Abstract : Introduction: Various kinds of violence and offences are related to alcohol consumption by the offenders. The relationship between alcohol and violence is complex. But its study is important to achieve understanding of violence as well as alcohol related behavior. This study was done to know the blood alcohol concentration in people involved in various offences and its demographic pattern. The study was carried out in the forensic toxicology laboratory, department of Forensic Medicine, All India Institute of Medical Sciences, New Delhi, India. Material and methods: The blood samples were collected from the arrested people shortly after the commission of the offence by the emergency medical officers in the emergency department and forwarded to the forensic toxicology laboratory through the investigating officer. The blood samples were collected in EDTA vial with sodium fluoride preservative. The samples were analyzed by using gas chromatography with head space (GC-HS), which is ideal for alcohol estimation. The toxicology reports were given within a week. The data of seven years (2011-17) were analyzed for its alcohol concentration, associated crimes and its demographic pattern. Analysis and conclusion: Total 280 samples were analyzed in the period of 2011-2017. All were males except one female who was a bar dancer. The maximum cases were in the age group of 21-30 years (124 cases). The type of offences involved were road traffic accidents (RTA), assault cases, drunken driving, drinking in public place, drunk on duty, sexual offence, bestiality, eve teasing, fall etc. The maximum cases were of assault (75 cases) followed by RTA (64 cases). The maximum cases were in the alcohol concentration range of 101-150mg% (58 cases) followed by 51-100mg% (52 cases). The maximum blood alcohol level detected was 391.51 mg%, belonging to a security guard found unconscious. This study shows that alcohol consumption is associated with various kinds of violence and offences in society.

Keywords : alcohol, crime, toxicology, violence

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