

SCIENTIFIC ABSTRACTS

Ethanol Concentration and Its Correlation with CNS Suppressor Drugs in Postmortem Subjects

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Background: Many studies have been done in order to interpret correctly the results of ethanol analysis and its related problems. Unfortunately, it was not easy to determine BAC rate, due to postmortem different conditions or personal and clinical differences in metabolism and excretion of ethanol. The time between death and autopsy, the environmental conditions (temperature and humidity) are important factors to be taken into account. Concentration of ethanol in vitreous humor depends on the person's age, drinking experience and degree of tolerance development.

Methods: In this study, concentration of ethanol in vitreous humor was assessed in 100 cases with consumption of CNS suppressor drugs that were detected in urine and tissue.

Results: The toxicity of ethanol is often considerably enhanced by the concomitant use of other drugs with their site of action in the brain especially opiates, antidepressants and some sedative hypnotics.

Conclusion: Death occurs in low concentration of alcohol consumed simultaneously with CNS suppressor drugs.

Keywords: Autopsy; Central Nervous System Agents; Ethanol; Vitreous Body

Therapeutic Effects of High Dose Intravenous Prednisolone on Methanol Induced Toxic Optic Neuropathy

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Background: The effects of high dose steroids for the treatment of methanol optic neuropathy was evaluated in this study.

Methods: In an interventional case series, 9 patients with a history of sudden visual loss after an ingestion of homemade alcoholic beverages were included in the study. The patients received 250 mg intravenous methyl prednisolone every 6 hours for 4 days continued with oral prednisolone at 1 mg/Kg for 10 days. Best corrected visual acuity (BCVA), optical coherent tomography (OCT), fundus photo, and a complete ophthalmologic exam of the patients were taken before the treatment and 3 months after treatment. Six of them referred before 48 hours and 3 after 72 hours.

Results: All patients were men. The mean age was 24.68 ± 4.2 years. In those who referred before 48 hours, the mean BCVA before the treatment was 0.86 ± 0.08 in the right eye (RE) and 0.93 ± 0.1 in the left eye (LE) using the logMAR scale. Four patients showed nerve fiber layer edema as a white density in peripapillary area. After treatment, the mean BCVA in the RE was 0.33 ± 0.18 and 0.29 ± 0.2 in the LE using the logMAR scale. The differences between before and after treatment were significant ($P = 0.008$ and $P = 0.003$, respectively). The mean macular thickness and CDR were unchanged. In those who referred after 72 hours, BCVA was not changed significantly (0.96 ± 0.3 and 0.94 ± 0.2 vs. 0.97 ± 0.3 and 0.94 ± 0.2 in RE and LE respectively).

Conclusion: Intravenous high dose methyl prednisolone may have benefits in the treatment of methanol optic neuropathy, if initiated before 48 hours.

Keywords: Methanol; Optic Neuropathy; Poisoning; Prednisolone