



Pathology & Biology Section – 2004

G41 Positional Asphyxia and Alcoholism: Review of Three Cases

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After attending this presentation, attendees will recall and consider the role of positional asphyxia in alcoholic deaths. Raise the index of suspicion of alcoholism in positional asphyxia deaths. Using case histories, consider the role of acute intoxication with ethanol, versus no intoxication, versus other agents. Be aware of issues in certification of manner of death in positional asphyxia deaths in alcoholics.

This presentation will impact the forensic community and/or humanity by creating awareness of possible role of alcoholism in positional asphyxia deaths, which has not received deserved consideration previously. Open the dialogue on how chronic alcoholism or acute intoxication in alcoholism is likely to affect positional asphyxia. Remind the forensic community that the manner of death deserves careful attention, as it may still be homicide, even in a person with scene evidence of positional asphyxia, and multiple intoxicants on board.

We report three cases in which positional asphyxia caused death, but was abetted or affected by alcoholism. In one of the cases, acute alcohol intoxication was present; in another, despite fatty liver, no alcohol was found on toxicology; in a third, homicidal assault may have been the instigating factor.

A 46-year-old woman, who had a history of a seizure disorder, was found dead at home. She had consumed a large quantity of beer and a half pint of Jack Daniels whiskey the evening before. She was found lying prone, with her neck hyperextended against the fabric of the foot of a couch. Scene photographs and autopsy findings both indicated that positional asphyxia was the cause of death. A faint bitemark on the tongue, and the absence of any seizure medication in the blood on toxicologic study, suggested that a seizure might have caused her to collapse in that position. However, the blood alcohol level was 0.43% weight per volume.

A 41-year-old man, with a history of probable chronic alcohol abuse and a known seizure disorder, was found dead at home, collapsed across the metal frame of a coffee table, which had had its glass top removed. Prominent pressure marks across his anterior neck and lower abdomen corresponded to the rails of the coffee table frame. The right cornu of the thyroid cartilage had fractured beneath the pressure mark, suggestive of a direct collapse onto the frame, possibly during a seizure; a probable tongue bitemark was present. Although fatty liver and micronodular cirrhosis were found at autopsy, the blood alcohol level was 0.0%. Toxicology did not reveal any anti-seizure medications.

The final case is more problematic. A 54-year-old woman, with a history of both chronic alcoholism and prescription drug abuse, was known to be unsteady on her feet; neighbors said she often had bruises. She was found dead at home, collapsed in her cluttered bedroom, with the head and neck extended into an awkward position. Autopsy showed a linear perimortem neck abrasion, with bruising over the anterior neck, and focal hemorrhage into the strap muscles. She had multiple bruises on the face, torso, and extremities, but no petechiae, and no fracture of the hyoid bone or thyroid cartilage. Postmortem toxicology showed an elevated amount of mirtazapine (0.6 mg/L), with no alcohol, street drugs, or anti-seizure medications. Death was attributed to asphyxia due to neck compression, due to positional asphyxia, with mirtazapine toxicity contributing. It was unclear whether some of the bruising or the linear abrasion might have been inflicted by an assailant.

These three deaths concern positional asphyxia in a setting of alcoholism. Although it is intuitively obvious that alcoholism should lend itself to deaths by positional asphyxia, there is a dearth of reports in the literature evaluating both. Reports in the popular media anecdotally mention alcoholism in a rare positional asphyxia death with homicidal intent, but the forensic literature has not addressed it. This report aims to open the forensic pathologic discussion on the effect of acute or chronic alcoholism on deaths by positional asphyxia

Positional Asphyxia, Alcoholism, Manner of Death