

CASE REPORT

J. F. Edland,¹ M.D.

Homicide by Barbiturates and Alcohol

REFERENCE: Edland, J. F., "Homicide by Barbiturates and Alcohol," *Journal of Forensic Sciences*, JFSCA, Vol. 27, No. 4, Oct. 1982, pp. 942-943.

ABSTRACT: Death from the misuse of alcohol and barbiturates is frequently encountered in most medical examiner/coroner offices. The cause of death is often quite apparent from the pathological and toxicological findings; however, the manner of death often gives the examining official some difficulty. The usual dilemma is to unravel whether the dead individual intentionally took the lethal combination in order to cause his/her own death or whether the combination was unintentionally ingested without awareness of the potentially lethal combination. The manner of death in these cases is either suicidal, accidental, or undetermined. A case is presented in which alcohol and barbiturates are the causes of death, but the manner of death is somewhat unusual in that it was administered by a second party with premeditation, deliberation, and intent to kill.

KEYWORDS: toxicology, alcohol, barbiturates, death, homicide

A 42-year-old white male chronic alcoholic was found fully clothed and partially frozen behind a country filling station, early one February morning. He was well known in the small community in which he lived, was employed, and had been seen about the village within the previous few days. While clothed, he was not dressed for the weather because he was without an overcoat, boots, scarf, hat, or gloves. He was, however, dressed in a suit coat, pants, open shirt, shoes, and socks. Examination at the scene showed no obvious marks of violence. The body was completely stiff and livor mortis was compatible with the position in which he was found. The body was taken to the local medical examiner's office to be thawed out and have an autopsy performed on it.

Autopsy Findings

The autopsy was done later on the same day in which the body was found. The 178-cm, 82-kg (70-in., 180-lb) white male had no external scars, lacerations, contusions, or abrasions. The internal examination revealed extensive pulmonary congestion and edema with combined lung weights of 1125 g. The liver was enlarged to 2000 g and showed fatty changes, the urinary bladder was distended with 250 cm³ of pale yellowish urine, the viscera were congested, and the brain was edematous. The stomach contained watery alcoholic-smelling clear fluid, there was no significant coronary artery disease and no pulmonary emboli, and a fluoroscopic examination revealed no fractures or foreign bodies. The cause of death was not immediately apparent at the conclusion of the autopsy and appropriate tissues and fluids were sent to the toxicology laboratory and routine microscopic sections were prepared from the organs. The death certificate was issued pending further investigation.

Received for publication 23 Feb. 1982; accepted for publication 31 March 1982.

¹Professor of pathology, Department of Pathology, Creighton University School of Medicine, Omaha, NE 68131.

Toxicological Studies

Blood, urine, liver, kidney, and bile were examined for alcohol and screened for other drugs by a modification of the method of Goldbaum and Dominguez [1].

The blood alcohol concentration was 265 mg/100 mL and the urine alcohol concentration was 220 mg/100 mL determined by gas chromatography and corroborated by a dichromate-oxidation procedure with approximately equal results. A long-acting barbiturate, consistent with phenobarbital, was identified with an ultraviolet spectrophotometry examination, which showed concentrations of 37.5 mg/100 mL of blood, 82 mg/100 g of liver, and 67 mg/100 g of kidney. No other drugs or chemicals were detected.

Further Investigation

An investigator from the medical examiner's office went to the home of the deceased to discuss with the family the possible circumstances leading to the death. The wife, who was quite agitated during the initial interview, stated that her husband was a longtime alcoholic, poor provider, and wife beater who was taking one 30-mg tablet of sodium phenobarbital per day for prophylaxis against a seizure disorder that had made its appearance in the past few years. When she was asked to produce the bottle of medication she broke down and told the investigator that she had put the medication in her husband's drinks the day before. While he was sitting in the kitchen drinking cans of beer, she would open the beer cans for him, put in two or three phenobarbital tablets, and watch him ingest it. She estimated that he consumed between 14 to 18 cans of beer and that she had placed all of his available phenobarbital medication in the containers, which she felt was probably more than 20 but less than 30 tablets.

Summary

With the historical, autopsy, and toxicological findings, the cause of death was determined as acute alcohol and barbiturate poisoning and the manner of death was ruled a homicide [2]. This is the first such homicide by alcohol and barbiturate poisoning in my experience despite the many accidental, suicidal, and undetermined alcohol/barbiturate deaths that I have certified; it is considered an oddity. It does give one pause, however, since most pathologists when thinking of murder by poison often think of more exotic and traditional chemicals and drugs.

Determining the manner of death is a solemn responsibility and carries with it the same importance as determining the cause of death. Without a follow-up investigation it is doubtful whether this case would have ever been properly solved [3].

References

- [1] Goldbaum, L. R. and Dominguez, A. M., "A System for the Toxicological Analysis of Drugs in Biological Specimens," in *Progress in Chemical Toxicology*, Vol. 5, Academic Press, New York, 1974, pp. 101-149.
- [2] Adelson, L., "Murder by Poison," in *The Pathology of Homicide*, 1st ed., Charles C Thomas, Springfield, IL, 1974, p. 725.
- [3] Kunitz, S. J. and Edland, J. F., "The Epidemiology of Autopsies in Monroe County, New York," *Journal of Forensic Sciences*, Vol. 18, No. 4, Oct. 1973, pp. 370-379.

Address requests for reprints or additional information to
John F. Edland, M.D.
Department of Pathology
Creighton University School of Medicine
601 N. 30th St.
Omaha, NE 68131