

OPINION:

In consideration of the circumstances of death and after autopsy of the body, it is our opinion that Melissa Byers, a 40-year-old white female, died of undetermined causes. She was found to be unresponsive in her home in Cherokee Village, Arkansas. Her spouse performed CPR until rescue arrived. She was transported to Baptist Memorial Hospital - Eastern Ozarks, where further resuscitative efforts were to no avail. Investigation of past medical history revealed treatment for post traumatic stress syndrome and depression after the murder of her child (ME-331-93).

At autopsy, no specific anatomical cause of death was found. The heart was enlarged and an artery supplying blood to the atrioventricular node (internal pacemaker) was narrowed. A single focus of 50% atherosclerotic narrowing was present in the right coronary artery. *There was enlargement of the liver and spleen with fatty change in the liver*, as well as findings of chronic cholecystitis caused by gallstones. Secondary to resuscitative efforts, there were fractures of the anterior right ribs and hematoma formation in the soft tissues over the heart. Two small scalp bruises were present as well as bruises of the upper arms and left shoulder.

Toxicological studies revealed the presence of lower than therapeutic levels of valproic acid (an anti-seizure medication, also used to treat post traumatic stress syndrome) and Lithium (a medication used for manic depression). Hydrocodone (a potent narcotic) was detected in the urine, but none was detected in the blood or liver. Metabolites of marijuana were present in the urine. Chemistry studies revealed mild to moderately increased glucose. Tests for heavy metals were negative.

In summary, no specific anatomic cause of death was found. Several abnormalities were present that have been associated with sudden unexpected death, including enlargement of the heart, narrowing of the artery supplying blood to the atrioventricular node (pacemaker) of the heart, fatty liver and elevated glucose. While these changes represent findings which can be associated with fatal physiological abnormalities, they do not necessarily cause death. Hydrocodone is a potent narcotic which is a dangerous drug even at therapeutic levels but repeated toxicological studies of blood and liver were negative. The presence of this drug in the urine indicates recent use and it cannot be ruled out that this drug did not play a contributory role in death with a delay between a toxic reaction and death allowing clearing of the drug into the urine. The other drugs found in the blood were at low or therapeutic levels which have not been associated with sudden death.

TYPE OF DEATH

APPARENT HOMICIDE

TYPE WEAPON CHECKED BELOW UNDER GUNS OR INSTRUMENTS YES OR NO
OTHER: _____
HAS WEAPON FOUND AT SCENE? YES OR NO
POLICE SHOOTING? YES OR NO

GUNS &/OR INSTRUMENTS

____ RIFLE/CALIBER _____ HANDGUN/CALIBER _____ SHOTGUN/GAUG. _____
____ MUZZLELOADER/CALIBER _____ OTHER _____ UNKNOWN
____ BLUNT _____ SHARP _____ DESCRIPTION _____

ADDITIONAL FACTS

INSIDE LOCATION: _____ LIVING ROOM _____ DINING ROOM _____ BATHROOM BEDROOM
____ GARAGE _____ KITCHEN _____ ATTIC _____ OTHER _____
POSITION OF BODY: ON BACK _____ STOMACH _____ OTHER _____
APPEARANCE: _____ FULLY CLOTHED CLOTHED PARTIALLY _____ UNCLOTHED
TATTOOS: yes SURGICAL SCARS: _____ RIGOR PRESENT: YES OR NO
LIVIDITY PRESENT: YES OR NO DECOMPOSED: YES OR NO EMBALMED: YES OR NO
VICTIM IS LEFT OR RIGHT HANDED? (CIRCLE ONE) OR UNKNOWN

APPARENT SUICIDE

POSSIBLE REASONS OR SIGNS: _____ SUICIDE NOTE _____ DEPRESSION _____ FINANCIAL
____ HEALTH _____ DIVORCE _____ PREVIOUS TALK _____ CLEANING WEAPON _____ OTHER
DESCRIBE: _____
OWNER OF WEAPON: _____ SELF _____ FRIEND _____ RELATIVE _____ UNKNOWN

WORK RELATED DEATH

DEATH DUE TO: _____ FALL _____ MACHINERY _____ APPLIANCE _____ TOOLS _____ EQUIPMENT
____ CAVE IN _____ ELECTROCUTION _____ OTHER DESCRIBE: _____

HOW DID INJURY OCCUR: _____

HANGING

TYPE OF LIGATURE: _____ ROPE _____ WIRE _____ SHEET _____ BELT _____ OTHER _____
LIGATURE ATTACHMENTS: _____ SUPPORT BEAM _____ HOOK _____ DOOR _____ CEILING
____ NAIL _____ TREE _____ OTHER DESCRIBE _____
WERE FEET LOCATED ON GROUND? YES OR NO ONE OR BOTH
PORNOGRAPHIC MATERIAL AT SCENE: YES NO UNKNOWN ANY NOTES? YES NO UNKNOWN
BODY CUT DOWN BY: _____ DATE/TIME _____
PADDING BETWEEN LIGATURE AND NECK? YES NO UNKNOWN
DESCRIBE LIGATURE - WHERE TIED - MEASUREMENTS - PHOTOS - DRAWING

01-674-96

CENTRAL NERVOUS SYSTEM:

Upon exposure of the scalp a 1/4 inch superior left frontal parietal galeal and subgaleal contusion was noted and a 1/2 inch right posterior superior parietal galeal and subgaleal contusion was noted. No associated edema or other hemorrhages were present. The calvarium and base of the skull showed no fractures. The dura mater and falx cerebri were intact. There was no epidural, subdural hemorrhage, or subarachnoid hemorrhage present. The leptomeninges were thin, delicate, and clear. The cerebral hemispheres were symmetric. The cranial nerves were intact. The Circle of Willis and related blood vessels were normal in caliber and distribution. After fixation, sections through the cerebral hemispheres, brain stem and cerebellum revealed no focal lesions or herniation. The spinal cord was not examined.

HISTOLOGY:

Heart: Mild to moderate myocyte hypertrophic changes, focal areas of contraction band necrosis. No fibrosis or chronic inflammation, most vessels normal with areas of increased polymorphonuclear leucocytes in small vessels and capillaries. A section of upper septum through the atrioventricular node showed no inflammation or fibrosis of the node. There was moderate to severe hypertrophic thickening of the nodal artery with a narrowed lumen. A section of coronary artery showed arteriosclerotic narrowing.

Lungs: Vascular congestion, desquamation of terminal bronchiolar and alveolar epithelium. Numerous intra-alveolar pneumocytes. Occasional coarse perivascular polarizable crystals, perivascular anthracosis, postmortem bacterial overgrowth, no interstitial or intra-alveolar acute or chronic inflammation, no reactive airway changes; occasional lymphoid aggregates.

Kidneys: Normal interstitial, glomerular, vascular and tubular architecture with autolytic changes. No glomerular thrombi, rare sclerosed glomeruli.

Liver: Moderate macro and microvesicular steatosis, mild to moderate periportal chronic inflammation, centrilobular vascular congestion.

Spleen: Vascular congestion.

Adrenals: Vascular congestion, adequate lipidization.

Thyroid: Normal follicular architecture.

Pancreas: Autolysis.

Brain and dura: Linear infiltrate of eosinophils, mid-dura, no other abnormalities. Normal leptomeninges with no active processes. Normal neuronal architecture.

Name: BYERS, Melissa

Date: 04/01/96

Number: ME-228-96

LABORATORY RESULTS

TOXICOLOGY:

Ethyl Alcohol: AM Blood- None detected

Drug Screens: 13.04ug/ml Valproic Acid- PM Blood (AM Blood- QNS)

Opiates- None detected in AM Blood

AM Urine Positive for Hydromorphone and Cannabinoids

dil audiol

Tests performed by National Medical Services:

PM Blood Hydromorphone - none detected.

PM Liver Opiates - none detected.

PM Liver Hydromorphone - none detected.

SEROLOGY:

Blood Type: O+

Other Examinations:

Vaginal Smears/ swabs - No semen was found on the smear slides.

Oral Smears/ swabs - No semen was found on the smear slides.

Rectal Smears/ swabs - No semen was found on the smear slides.

Other - No semen was found on the submitted underwear.

CHEMISTRIES:

Body Fluid Chemistries:

Vitreous Humor Glucose = 143 mg/dl

Vitreous Humor BUN = 8 mg/dl

Vitreous Humor Creatinine = 1.0 mg/dl

Chemistry Basic:

Vitreous Humor Sodium = 122 meq/l

Vitreous Humor Potassium = 20.6 meq/l

Vitreous Humor Chloride = 118 meq/l

Vitreous Humor CO2 = 4 meq/l

Psychotropic Drugs I:

Vitreous Humor Lithium = 0.3 mmol/l

Heavy Metals: Negative.