



OFFICE OF THE MEDICAL EXAMINER
701 W. Jefferson St.
Phoenix, AZ 85007

REPORT OF AUTOPSY

DECEDENT: Marcia Joann Powell

CASE: 09-02884

DATE OF EXAMINATION: 05/22/2009

TIME: 0800 Hours

PERSONS PRESENT AT EXAMINATION:
Arizona Department of Corrections: Detective E. Ellis #441

PATHOLOGICAL DIAGNOSES

- I. Complications of hyperthermia due to environmental heat exposure.
 - A. Dehydration, electrolyte pattern.
 - B. Core body temperature 108 degree Fahrenheit.
 - C. Metabolic acidosis with coagulopathy.
 - D. Rhabdomyolysis and acute renal failure.
 - E. Numerous first and second degree thermal burns of face, trunk, and extremities.

CAUSE OF DEATH: Complications of hyperthermia due to environmental heat exposure

MANNER: Accident

8-19-09

Date Signed

Mark A. Fischione MD

**MARK A. FISCHIONE, MD
MEDICAL EXAMINER**

MARICOPA COUNTY OFFICE OF THE MEDICAL EXAMINER

REPORT OF TOXICOLOGICAL EXAMINATION

Case Number: 09-02884
Decedent: MARCIA JOANN POWELL
Date Submitted: 05/22/2009
Report Date: 07/06/2009

Specimens Collected: HOSPITAL BLOOD H1A, HOSPITAL BLOOD H1B, HOSPITAL URINE, HOSPITAL SERUM H2, URINE, BLOT/FILTER PAPER, VITREOUS, BILE, GASTRIC, LUNG, BRAIN, ILIAC BLOOD

Medical Examiner: MARK A. FISCHIONE, MD

RESULTS*


Vitreous: None detected for ethanol, methanol, isopropanol and acetone

Hospital Blood: (H1) None detected for ethanol, methanol, isopropanol, acetone, methamphetamine, benzoylcegonine, morphine, codeine, benzodiazepines, barbiturates and fentanyl

Iliac Blood: Positive for
Benztropine 0.02 mg/L**
Valproic Acid total 6.6 mg/L**
Haloperidol 0.005 mg/L**
Lidocaine
None detected for amphetamine, methamphetamine, phencyclidine, cocaine, methadone, codeine, antihistamines, phenothiazines, and tricyclic antidepressants

Hospital Urine: Positive for
Benztropine
None detected for amphetamine, methamphetamine, phencyclidine, cocaine, methadone, codeine, antihistamines, phenothiazines, and tricyclic antidepressants

*If results are not listed for any specimen(s), that/those specimen(s) is/are deemed to be on "HOLD"
**Assay performed by MedTox, St. Paul, MN


Norman A. Wade
Laboratory Director

Jurisdictional Agency: AZ DOC

By:ogm
Tox, 1/2000
DAWN:

WAF
7-8-09

REPORTED CIRCUMSTANCES OF DEATH

This 48-year-old woman who was a prisoner at a local correctional facility was pronounced dead at a local hospital. She was found unresponsive outside after not being seen for approximately three and a half hours.

CLOTHING

The body is received at the Maricopa County Office of the Medical Examiner in a sealed plastic pouch with the seal #0803619. When first viewed, the body is nude.

EXTERNAL EXAMINATION

The body is that of a well-developed, well-nourished, white female whose appearance is compatible with the stated age of 48 years. Her body, when nude, weighs 152 pounds and is 67-1/2 inches in length. The body is cool due to refrigeration, rigor is fully developed, and the posterior lividity is fixed. The scalp hair is approximately 12 inches in length, gray-brown in color, and straight. The irides are brown with prominent tache noire. Pupils are dilated to 0.3 cm bilaterally and there is mild bilateral arcus senilis. There are no petechiae of the bulbar or palpebral surfaces of the conjunctivae. The ears, nose, and lips are unremarkable. The teeth are natural and in fair condition. The neck is unremarkable. The breasts are symmetrical. The abdomen is flat, with mild greening of the right upper and lower quadrants as well as the left lower quadrant. The external genitalia, anus, and perineum are unremarkable. There is no evidence of injury or trauma. The extremities are well developed, symmetrical, and unremarkable. The back is unremarkable. There is a ruddy purple congestion of the anterior chest, neck, and face, and bilateral ear creases are present.

IDENTIFYING MARKS AND SCARS

There is an old scar on the midline of the forehead measuring 2 inches in length. There is a teardrop tattoo extending from the outer canthus of the left eye. There is a tattoo of the word "John C" in the right upper chest area. There is a tattoo of the word "Troy" on the lateral aspect of the right upper arm. There is a tattoo of the word "John" located above the umbilicus. There is a tattoo of a flower on the lateral aspect of the right lower leg. There is a nondescript tattoo in the right posterolateral flank area. There are multiple old scars over the dorsal aspect of the left hand, the largest measuring 1-1/2 x 1/8 inch in greatest dimension. There is an old scar overlying the left knee measuring 1 inch in length. There is an older contusion over the anterior aspect of the right lower leg, the largest measuring 2 x 2 inches in greatest dimension. There are multifocal old abrasions over the dorsal aspects of both feet and toes, the largest measuring 1/8 x 1/16 inch in greatest dimension. There is an old scar overlying the dorsal aspect of the right foot measuring 2 x 2 inches in greatest dimension.

There are two linear old scars over the volar aspect of the right wrist, the largest measuring 2 inches in length. There is an old transverse running scar over the volar aspect of the left wrist measuring 1 inch in length.

EVIDENCE OF THERAPY

- Previously made puncture hole surrounded by ecchymoses in the right subclavian area.
- Two previously made puncture holes on the medial aspect of the right upper arm.
- Six electrocardiographic pads.
- Foley catheter.
- Previously made puncture hole in the left antecubital fossa.
- Central intravenous line in the medial aspect of the left upper arm.
- Previously made puncture hole in the dorsal aspect of the right hand.
- Multiple previously made puncture holes over the volar aspects of both forearms.
- White temperature gauge over the big toe on the left.

EVIDENCE OF INJURY

There are multifocal areas of first and second degree thermal injuries over the anterior chest and anterior upper and lower extremities, the largest over the chest measures 2 x 2 inches in greatest dimension. There is a large second degree blistering area of thermal injury over the anterolateral aspect of the right upper arm measuring 6-1/2 x 3 inches in greatest dimension. Likewise, there are focal blistering second degree areas of thermal injury over the lateral aspect of the left upper arm, the largest measuring 4 x 3 inches in greatest dimension. There is a previously broken second degree blister measuring 5 x 3 inches on the volar aspect of the left forearm. There is a focal contusion over the left upper back area measuring 1-1/2 x 1-1/2 inches in greatest dimension. There is a focal area of first degree thermal injury over the right cheek area measuring 1-1/2 x 1 inch in greatest dimension. No other injury is seen.

INTERNAL EXAMINATION

BODY CAVITIES

The thoracic and abdominal organs are in their normal anatomic positions. There is focal hemorrhage in the right upper chest wall due to prior central line placement. The body cavities contain no adhesions. There is approximately 50 cc of serous fluid within each of the chest cavities and 100 cc of serous fluid within the abdominal cavity.

HEAD

The scalp, subscalpular area, and skull are unremarkable. There is no evidence of injury or trauma. The dura and dural sinuses are unremarkable. There are no epidural, subdural, or subarachnoid hemorrhages. The brain weighs 1440 grams. The leptomeninges are thin and delicate. The cerebral hemispheres are edematous with

MARCIA JOANN POWELL

mild flattening of the gyral pattern. The cranial nerves and blood vessels are unremarkable. Sectioning through the cerebral hemispheres, brain stem, and cerebellum reveal no trauma. There are no hemorrhages in the deep white matter or the basal ganglia. The cerebral ventricles contain no blood.

NECK

There is no evidence of injury or trauma. The soft tissues and prevertebral fascia are unremarkable. The hyoid bone and larynx are intact.

CARDIOVASCULAR SYSTEM

The intimal surface of the abdominal aorta contains a mild amount of atherosclerosis. The aorta, its major branches, and the great veins are normally distributed. The heart weighs 370 grams. The pericardium and endocardium are smooth, glistening, and unremarkable. There are no thrombi in the atria or ventricles. The foramen ovale is closed. The coronary arterial system is right predominant and contains a mild amount of atherosclerosis. The atrial and ventricular septa are intact. The cardiac valves are unremarkable. The myocardium is dark red-brown and firm, and there are no grossly recognizable abnormalities.

RESPIRATORY SYSTEM

The left lung weighs 690 grams; the right lung weighs 710 grams. The upper airway is unobstructed. The laryngeal mucosa is smooth and unremarkable, without petechiae. The pleural surfaces are smooth and shiny. The pulmonary arteries contain no emboli. The major bronchi are unremarkable. Sectioning of the lungs discloses a dark red-blue, markedly congested and edematous lung parenchyma with focal heaviness to the right lower lobe.

HEPATOBIILIARY SYSTEM

The liver is covered by a smooth, glistening capsule. The liver weighs 1830 grams. The parenchyma is tan-yellow, fatty, with minimal congestion. The gallbladder contains no calculi. The extrahepatic biliary ducts are unremarkable.

DIGESTIVE SYSTEM

The esophageal mucosa is gray, smooth, and unremarkable. The stomach contains approximately 300 cc of brown liquid. There are no tablets or capsules. The gastric mucosa has normal rugal folds, and there are no ulcers. The small and large intestines are unremarkable. The appendix is present. The pancreas is unremarkable externally and on sectioning.

GENITOURINARY SYSTEM

The capsules of both kidneys are removed with ease, revealing a moderate to severe amount of pitting to the subcapsular surface. The left kidney weighs 120 grams; the right kidney weighs 170 grams. The cortex is thin. The calyces, pelves, and ureters are unremarkable. The urinary bladder contains approximately 40 cc of light brown urine. The mucosa is gray, smooth, and unremarkable. The uterus, ovaries, and fallopian tubes are unremarkable externally and on sectioning.

ENDOCRINE SYSTEM

The thyroid and adrenal glands are unremarkable externally and upon sectioning.

RETICULOENDOTHELIAL SYSTEM

The spleen weighs 180 grams. The spleen is covered by a smooth, blue-gray, intact capsule. The parenchyma is dark red. The lymph nodes are unremarkable.

MUSCULOSKELETAL SYSTEM

The clavicles, ribs, sternum, pelvis, and vertebral column have no fractures. The diaphragm is intact.

TOXICOLOGY

Samples of blood, urine, bile, gastric contents, and vitreous humor are collected and submitted for toxicologic analysis.

MICROSCOPIC NOTES

Lungs: Sections reveal congestion and focal edema, focal emphysematous changes, and focal hyaline membranes.

Heart: Section reveals congestion with no diagnostic abnormality.

Liver: Section reveals congestion with focal areas of chronic active and acute inflammation of the portal triads with extension into the liver parenchyma.

Kidneys: Section reveals congestion with focal interstitial fibrosis, sclerosed glomeruli, chronic inflammation and tubal atrophy with thyroidization.

MARCIA JOANN POWELL

09-02884

FINAL SUMMARY/OPINION

Based on the autopsy findings and investigative history, as available to me, it is my opinion that Marcia Joann Powell, a 48-year-old Caucasian female, died as a result of Complications of Hyperthermia due to Environmental Heat Exposure.

The manner of death is Accident.

MAF/svp
D5/24/09
T6/14/09