



Office of Chief Medical Examiner
Tarrant County Medical Examiner's District
Tarrant County, Texas
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DEATH INVESTIGATION REPORT

ROBERT WYATT WHEELER

2219485

A postmortem examination is performed by Dana L. Hopson, MD, Deputy Medical Examiner, beginning at 0917 hours on October 26, 2022 at the Tarrant County Medical Examiner's Office, Fort Worth, Texas.

Autopsy technician: Cynthia Esparza

Other persons present: None

DECLARATION

The death of **ROBERT WYATT WHEELER** was investigated by the Tarrant County Medical Examiner's District under the statutory authority of the Tarrant County Medical Examiner.

I, Dana L. Hopson, MD, a board certified anatomic, clinical, and forensic pathologist licensed to practice medicine in the State of Texas, do declare that I personally performed or supervised the tasks described in this Medical Examiner Report. It is only after careful consideration of all the data available to me at the time this report was finalized that I attest to the diagnoses and opinions stated herein.

Numerous photographs were obtained along the course of the examination. I have personally reviewed those photographs and attest that they are representative of findings reported in this document.


Should you have questions after review of this material, please feel free to contact me at the Tarrant County Medical Examiner's Office.

DH

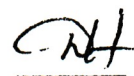
CAUSE OF DEATH STATEMENT

CAUSE OF DEATH: COMBINED TOXIC EFFECTS OF MITRAGYNNINE,
DOXYLAMINE, HYDROXYZINE, AND SERTRALINE

MANNER OF DEATH: ACCIDENT


DANA L. HOPSON, MD
Deputy Medical Examiner

02/15/23
Date



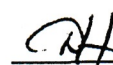
SUMMARY AND OPINION

According to the investigative information, the decedent is a 27-year-old man who was witnessed to have seizure-like activity with foam emanating from his mouth after a suspected unwitnessed collapse at home. Emergency medical services were summoned, and resuscitation was initiated. He was transported to Texas Health Fort Worth Hospital and pronounced minutes after arrival to the emergency department. He has a reported history of a prior accidental overdose on fentanyl and cocaine, prior Kratom use with a possible overdose and associated seizure-like activity, asthma, and anxiety.

At autopsy, and upon review of microscopic sections of the organs, findings associated with central nervous system and/or respiratory depression were identified including cerebral edema (swelling of the brain), prominent pulmonary congestion and edema (fluid within the lungs), and urinary retention. There was also focal intramuscular hemorrhage of the tongue consistent with the reported history of seizure-like activity on the date of death. Additional findings of mild cardiomegaly (enlargement of the heart) with mild myocyte hypertrophy, mild hepatic steatosis (fatty liver), and rare areas of granulomatous inflammation within the lungs and liver were also identified.

The postmortem toxicological analysis revealed mitragynine within the blood in an elevated concentration and its metabolite 7-hydroxymitragynine. Doxylamine, hydroxyzine, and sertraline were detected within elevated concentrations. Diphenhydramine, amphetamine, and products of marijuana (THC, 11-OH-THC, and THC-COOH) were detected within non-elevated levels and are non-contributory. The decedent was reportedly prescribed amphetamine. Dextromethorphan was detected in the blood within an elevated, non-lethal concentration and is non-contributory. Vitreous chemistries were analyzed and are non-contributory.

Mitragynine is present in the plant Kratom. Its effects on the body are dependent upon the amount that is used. At lower doses mitragynine has stimulant-type effects, and at higher doses it has opioid-type effects. Opioid overdoses may result in central nervous system (brain) and/or respiratory (lung) depression with cerebral edema, pulmonary congestion and edema, and urinary retention. Mitragynine toxicity is associated with these findings as well as seizures, increased heart rate, and death. Doxylamine, hydroxyzine, and sertraline were detected within elevated concentrations. When these medications are present in combination with a substance such as mitragynine, they have a synergistic effect. It is my opinion that the cause of death is combined toxic effects of mitragynine, doxylamine, hydroxyzine, and sertraline, and that the manner of death is accident.



EXTERNAL EXAMINATION

Body bag seal:	#0003386; a medical examiner identification bracelet attached to the body bag is inscribed "Robert Wyatt Wheeler, 2219485"
Clothing:	A pair of cut brown shorts beneath the body
Personal effects:	A black fabric bracelet with a brown arrow pendant around the right wrist
Body length (inches, cm):	72.0 182.9
Body weight (pounds, kg):	222.6 100.8
Body mass index (kg/m²):	30.2
Development:	Well-developed
Stature:	Overweight
Age:	Appears to be stated age
Anasarca:	Not present
Edema localized:	Not present
Evidence of dehydration:	Not present
Skin:	See Evidence of Injury
Scalp hair length:	Medium
Scalp hair color:	Light brown-red
Eyes:	Both eyes present
Irides:	Green-hazel
Corneas:	Translucent
Sclera/bulbar conjunctivae:	White
Palpebral conjunctiva:	Translucent
Petechiae:	Not present
Nose:	Normally formed
Ears:	Normally formed
Lips:	Normally formed
Facial hair:	Beard and mustache
Facial hair color:	Red-brown
Maxillary dentition:	Natural
Mandibular dentition:	Natural

CPH

Condition of dentition:	Good
Neck:	Unremarkable
Trachea midline:	Yes
Chest development:	Normal
Chest symmetrical:	Yes
Chest diameter:	Appropriate
Abdomen:	Distended by gas; striae present
Anus:	Unremarkable
Back:	Unremarkable
Spine:	Unremarkable
External genitalia:	Male
Breast development:	None
Breast masses:	None
Right hand digits complete:	Yes
Left hand digits complete:	Yes
Right foot digits complete:	Yes
Left foot digits complete:	Yes
Extremities:	Well-developed and symmetrical
Muscle group atrophy:	Not present
Senile purpura:	Not present
Pitting edema:	Not present
Tattoos:	Monochromatic inscription "210" on medial left ankle
Cosmetic piercing:	None identified
Scars:	None identified

PH

POSTMORTEM CHANGES

Body temperature:	Cool subsequent to refrigeration
Rigor mortis:	Fully fixed
Livor mortis – color:	Purple-red
Livor mortis – fixation:	Unfixed/blanching
Livor mortis – position:	Posterior
State of preservation:	No decomposition
Funerary Preparation(s):	None
Organ/tissue procurement:	None

CH

MEDICAL INTERVENTION

Evidence of medical intervention:

An endotracheal tube extends from the mouth. An orogastric tube extends from the mouth. Nasal trumpets are in the right and left nostrils. Multiple electrocardiogram pads are on the right and left chest and the right and left abdomen. Pacing pads are on the lateral right chest, the sternal region of the chest, and the left chest. A puncture mark is in the lateral left neck. Intravascular catheters are in the right neck and the right and left antecubital fossae. Plastic hospital bracelets around the right wrist are inscribed "Wheeler, Robert" and with the decedent's medical record number. A pulse oximeter monitor is on the left index finger. A monitor is on the left side of the forehead.

Injuries related to resuscitative attempts:

Focal red-brown abrasions are on the sternal region of the chest. There is focal mild hemorrhage of the proximal larynx. The anterior left fourth rib is fractured with associated focal hemorrhage of the surrounding muscles and soft tissues.

CAH

EVIDENCE OF INJURY

Conventions used in description of injuries:

- 1. The body is described in the Standard Anatomic Position. Reference is to this position only.*
- 2. Clock-face references are from the perspective of the observer viewing the body in the Standard Anatomic Position, with the 12 o'clock position corresponding to the top of the head.*
- 3. Injuries are numbered or lettered for reference purposes only and will occasionally correspond to labeled injuries in the autopsy photographs. This is arbitrary and does not correspond to any order in which they have been incurred or degree of severity.*

A 0.3 by 0.2 centimeter red-brown abrasion is on the left side of the forehead. A 0.4 cm linear, red-brown abrasion is on the dorsum of the nose. A 3 cm linear, red-brown scab is on the anterior aspect of the mid to distal right thigh. No injuries other than those associated with medical intervention are identified on internal examination.

CH

POSTMORTEM IMAGING/RADIOLOGY

No postmortem radiographs are performed.

CH

INTERNAL EXAMINATION

BODY CAVITIES

Chest cavities examined:	Yes
Abdominal cavity examined:	Yes
See Evidence of Injury:	No
See Evidence of Medical Intervention:	No
See Postmortem Changes:	No
Serosal surfaces:	Smooth and glistening
Body cavity adhesions:	None present
Fluid accumulation present:	None present

HEAD

Brain examined:	Yes
See Evidence of Injury:	No
See Evidence of Medical Intervention:	No
See Postmortem Changes:	No
Brain weight fresh (g):	1560
Reflected scalp and temporalis muscles	Unremarkable
Facial skeleton:	No palpable fractures
Calvarium:	No fractures
Skull base:	No fractures
Dura mater:	Unremarkable and without masses or membranes
Dural venous sinuses:	Patent
Leptomeninges:	Thin and transparent
Epidural hemorrhages/hematomas:	Absent
Subdural hemorrhages/hematomas:	Absent
Subarachnoid hemorrhages:	Absent
Cerebral hemispheres:	Symmetrical
Gyral and sulcal patterns:	Unremarkable
Gyral convolutions and sulci:	Mild widening and flattening of gyri, and narrowing of sulci
Uncal processes:	Unremarkable
Cerebellar tonsils:	Unremarkable

CH

Cranial nerves:	Unremarkable
Basilar arterial vasculature:	Unremarkable
Cerebral cortex:	Unremarkable
White matter:	Unremarkable
Corpus Callosum:	Unremarkable
Deep gray matter structures:	Unremarkable
Brainstem:	Unremarkable
Cerebellum:	Unremarkable
Other comments:	The mammillary bodies, hippocampi and ventricles are symmetric without lesions.

Spinal cord

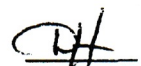
Spinal cord examined:	Yes
Spinal dura:	Not examined
Spinal cord:	Upper cervical spinal cord unremarkable

Middle ears

Middle ears examined:	No
Tympanic membranes:	Not examined
Contents of ear canals:	Not examined

NECK

Neck examined:	Yes
See Evidence of Injury:	No
See Evidence of Medical Intervention:	Yes
See Postmortem Changes:	No
Subcutaneous soft tissues:	Unremarkable
Strap muscles:	Unremarkable
Jugular veins:	Unremarkable
Carotid arteries:	Unremarkable
Tongue:	Focal intramuscular hemorrhage within the tip of the tongue without discernible lacerations or bite marks of the mucosa
Epiglottis:	Unremarkable
Hyoid bone:	Unremarkable
Larynx:	No masses or injuries; see Evidence of Medical Intervention
Palatine tonsils:	Not examined



CARDIOVASCULAR SYSTEM

Heart examined: Yes
See Evidence of Injury: No
See Evidence of Medical Intervention: No
See Postmortem Changes: No

Heart

Heart weight fresh (g): 461.5

Right coronary ostium position: Normal

Left coronary ostium position: Normal

Supply of the posterior myocardium: Right coronary artery

Coronary artery stenosis: Right coronary ostium - 0%

Right coronary artery - 0%

Left coronary ostium - 0%

Left mainstem coronary artery – focal minimal (20%)

Left anterior descending coronary artery - 0%

Left circumflex coronary artery - 0%

Cardiac chambers: Unremarkable

Tricuspid valve: Unremarkable; 11.1 centimeters in circumference

Pulmonic valve: Unremarkable; 8 centimeters in circumference

Mitral valve: Unremarkable; 10.5 centimeters in circumference

Aortic valve: Unremarkable; 7 centimeters in circumference

Right ventricular myocardium: No fibrosis, pallor, hemorrhage, pathologic infiltration of adipose tissue or areas of accentuated softening or induration

Left ventricular myocardium: No fibrosis, pallor, hemorrhage, or areas of accentuated softening or induration

Atrial septum: Unremarkable

Ventricular septum: Unremarkable

Right ventricular free wall thickness (cm): 0.3

Left ventricular free wall thickness (cm): 1.2

Interventricular septal thickness (cm): 1.0

Other comments: Focal mild myocardial hemorrhage is within the posterior interventricular septum at the mid heart to the base; there is no softening of the myocardium within this region.

DH

Aorta

Aorta examined: Yes
Orifices of the major vascular branches: Patent
Coarctation: Not present
Vascular dissection: Not present
Aneurysm formation: Not present
Aortic atherosclerosis: Mild fatty streaks
Other aortic pathology: Not present

Vena Cava

Great vessels examined: Yes
Vena cava and major tributaries: Patent

RESPIRATORY SYSTEM

Lungs examined: Yes
See Evidence of Injury: No
See Evidence of Medical Intervention: No
See Postmortem Changes: No

Right lung weight (g): 767
Left lung weight (g): 573.5

Upper and lower airways: Unobstructed and the mucosal surfaces are smooth and tan-pink
Pulmonary parenchyma color: Pink to dark red-purple
Pulmonary congestion and edema: Moderate amounts of blood and frothy fluid
Anthracotic pigment: Mild
Emphysematous changes: Not present
Pulmonary trunk: Free of thromboemboli
Pulmonary artery atherosclerosis: None
Other comments: No mucous plugs within trachea, mainstem bronchi, or peripheral small airways

HEPATOBIILIARY SYSTEM

Liver examined: Yes
See Evidence of Injury: No

CH

See Evidence of Medical Intervention:	No
See Postmortem Changes:	No
Liver weight (g):	2309.5
Hepatic parenchyma (color):	Red-brown
Hepatic parenchyma (texture):	Unremarkable
Hepatic vasculature:	Unremarkable and free of thrombus
Gallbladder:	Unremarkable
Gallstones:	No
Biliary tree:	Unremarkable

GASTROINTESTINAL SYSTEM

Alimentary tract examined:	Yes
See Evidence of Injury:	No
See Evidence of Medical Intervention:	No
See Postmortem Changes:	No
Stomach contents volume (mL):	100
Stomach contents description:	Dark-brown fluid with few dark-brown, partially-digested food fragments; no pills or pill fragments are identified.
Appendix:	Unremarkable

Esophagus

Course:	Normal course without fistulae
Mucosa:	Gray-white, smooth and without lesions

Stomach

Mucosa:	Usual rugal folds
Pylorus:	Patent and without muscular hypertrophy
Other comments:	No masses or ulcers

Small Intestine

Luminal contents:	Partially digested food
Mucosa:	Duodenal mucosa unremarkable; remaining bowel mucosa not examined
Caliber and continuity:	Appropriate caliber without interruption of luminal continuity

PH

Colon

Luminal contents: Formed stool
Mucosa: Rectal mucosa unremarkable; remaining colonic mucosa not examined
Caliber and continuity: Appropriate caliber without interruption of luminal continuity

Pancreas

Form: Normal tan, lobulated parenchyma

GENITOURINARY SYSTEM

Genitourinary system examined: Yes
See Evidence of Injury: No
See Evidence of Medical Intervention: No
See Postmortem Changes: No

Kidneys

Right kidney weight (g): 140
Left kidney weight (g): 159

Kidney capsules: Thin, semitransparent
Cortical surfaces: Smooth
Cortices: Normal thickness and well demarcated from the medullary pyramids with red-brown parenchyma and focal areas of tan discoloration
Calyces, pelves, and ureters: Non-dilated and free of stones and masses

Urinary bladder

Urine volume (mL): 300
Urine description: Translucent yellow
Urinary bladder mucosa: Gray-tan and smooth

Male

Testicle location: Scrotal
Testicle size: Not removed
Testicle consistency: Not removed
Prostate gland size: Unremarkable

Prostate gland consistency: Homogeneous
Other comments: No palpable masses of the testes

RETICULOENDOTHELIAL SYSTEM

Reticuloendothelial system examined: Yes
See Evidence of Injury: No
See Evidence of Medical Intervention: No
See Postmortem Changes: No

Spleen

Spleen weight (g): 301

Spleen parenchyma: Moderately firm without masses or prominent white pulp
Spleen capsule: Intact

Bone Marrow

Color: Red-brown, homogeneous

Lymph nodes

Regional adenopathy: No adenopathy

Thymus

Thymus weight (g): Not applicable
Parenchyma: Absent

ENDOCRINE SYSTEM

Endocrine system examined: Yes
See Evidence of Injury: No
See Evidence of Medical Intervention: No
See Postmortem Changes: No

Pituitary gland

Size: Normal

Thyroid gland

Thyroid gland position: Normal
Thyroid gland size: Normal
Thyroid gland parenchyma: Normal

CH

Adrenal glands

Adrenal gland size: Normal
Adrenal gland parenchyma: Yellow cortices and gray medullae with the expected corticomedullary ratio

MUSCULOSKELETAL SYSTEM

Musculoskeletal system examined: Yes
See Evidence of Injury: No
See Evidence of Medical Intervention: Yes
See Postmortem Changes: No

Bony framework: See Evidence of Medical Intervention; there are no fractures of the clavicles, vertebrae, pelvic bones, or bones of the extremities

Supporting musculature: Unremarkable
Subcutaneous soft tissues: Unremarkable

CNH

MICROSCOPY

SLIDE KEY

1. Left lung x 2
2. Right lung x 3
3. Liver, kidney
4. Heart, anterior left ventricle and interventricular septum
5. Heart, posterior left ventricle
6. Heart, right ventricle; pancreas
7. Brain, hippocampus

*Unless otherwise indicated, sections are stained only with hematoxylin and eosin (H&E).

MICROSCOPIC DESCRIPTION

BRAIN: No significant histopathologic abnormality

HEART: Mild cardiac myocyte hypertrophy; no acute or chronic inflammation

LUNGS: Vascular congestion with extravasation of red blood cells; edema; few foci of non-caseating granulomatous inflammation composed of multinucleated giant cells and lymphocytes with rare multinucleated giant cells surrounding foreign material resembling vegetable matter

LIVER: Rare non-caseating granulomatous inflammation composed of multinucleated giant cells, lymphocytes, macrophages, and fibrosis; mild macrovesicular steatosis

PANCREAS: Autolysis; focal mild interstitial extravasated red blood cells; no acute or chronic inflammation; no fibrosis

KIDNEY: Rare sclerotic glomeruli

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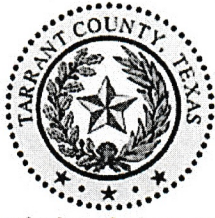
PROCEDURAL NOTES

APPROACH TO AUTOPSY DISSECTION

Rokitansky evisceration:	Not performed
Virchow evisceration:	Performed
Modified evisceration:	Not performed
Pericranial membrane removal:	Not performed
Anterior neck dissection:	Not performed
Posterior neck dissection:	Not performed
Facial dissection:	Not performed
Vertebral artery dissection (in situ):	Not performed
Cervical spine removal:	Not performed
Layered anterior trunk dissection:	Not performed
Anterolateral rib arc dissection:	Not performed
Back dissection:	Not performed
Posterior rib arc dissection:	Not performed
Extremity soft tissue dissection:	Not performed
Eye enucleation:	Not performed
Inner middle ear evaluation:	Not performed
Maxilla or mandible resection:	Not performed
Spinal cord removal (anterior):	Not performed
Spinal cord removal (posterior):	Not performed
Other dissection(s):	Not performed

DLH/sad

RH



Toxicology Laboratory

Tarrant County Medical Examiner's Office
200 Feliks Gwozdz Place
Fort Worth, TX 76104
(817) 920-5700

Kendall Crowns, M.D.
Chief Medical Examiner

Robert Johnson Ph.D., F-ABFT
Chief Toxicologist

Forensic Toxicology Results

TCME Case #:2219485
Toxicology Work # : 2203949
Service Request No:001
Case Name : Robert Wyatt Wheeler

Start Date: 10/27/2022

Agency :TCME

Items: Exhibit Number(s)

- 5 Toxicology Specimens
5.1 Blood, Femoral
5.2 Blood, Femoral
5.3 Blood, Heart
5.4 Urine
5.5 Vitreous Humor

Table with 4 columns: Specimen/Analyte, Result, Instrument, Performed by. Contains data for 5.1 Blood, Femoral and 5.5 Vitreous Humor.

5.3 Immunoassay screening (ELISA) was used to screen for the following drugs or drug classes: amphetamine, methamphetamine, benzodiazepines, cocaine, opiates, cannabinoids, oxycodone, and fentanyl(s), and, if positive, confirmed quantitative/qualitative results are reported above.

The absence of an exhibit number indicates that the item was not tested, or the item was screened and not used for the purposes of generating a reported result.

Signature of Robert Johnson Ph.D., F-ABFT

Date 11/16/22