



COUNTY OF EL PASO
OFFICE OF THE MEDICAL EXAMINER
AND FORENSIC LABORATORY

Autopsy Report
Case 2022-0425

MICHAEL CHARLES THOMPSON

Cause of Death: Sudden Death during Law Enforcement Subdual and
Restrain

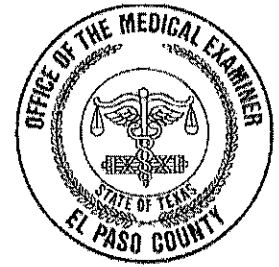
Contributing: Acute Methamphetamine Toxicity, Atherosclerotic
Cardiovascular Disease

Manner of Death: Homicide

Janice Diaz-Cavallieri, M.D.
Deputy Medical Examiner for El Paso County, Texas

AUTOPSY REPORT

THOMPSON, MICHAEL C.
2022-0425



POSTMORTEM EXAMINATION

An autopsy is performed on the body of Michael C. Thompson at the El Paso County Office of the Medical Examiner, State of Texas, on the 27th day of June, 2022 starting at 10:15am. The body is received within a body bag with a label bearing the decedent's name. Items of clothing and personal effects are inventoried separately. The autopsy is conducted in the presence of J. Grajeda and A. Gonzalez of the El Paso Police Department.

EXTERNAL EXAMINATION (EXCLUDING INJURIES)

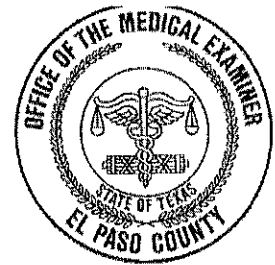
The body is that of a well-developed, well-nourished (with a body mass index of 21.8 kg/m²), adult, Black, man who weighs 165 pounds, is 73 inches in length, and has a reported age of 36 years. The body is refrigerated. Rigor mortis is fixed. Livor mortis is not apparent. The scalp hair is black and measures approximately 1/8 inch in length over the crown. The irides are brown. The corneae are translucent. The sclerae are white, and the conjunctivae are clear. No petechial hemorrhages are identified on the sclerae, bulbar conjunctivae, facial skin, or oral mucosa. The nose and ears are normally formed. The decedent wears a stubble. The oral cavity has natural teeth. The neck is unremarkable. The thorax is well developed and symmetrical. The abdomen is flat. The anus is free of lesions. The spine is normally formed, and the surface of the back is free of lesions. The external genitalia are those of a normal adult man. The upper and lower extremities are well developed and symmetrical, without absence of digits. No identifying marks or scars are readily apparent. Evidence of medical intervention includes endotracheal tube, left shoulder intraosseous catheter, left antecubital fossa intravenous catheter, cardiac patches, right antecubital fossa intravenous catheter, left second toe oximeter, left wrist identification band and left index finger oximeter.

EVIDENCE OF INJURY

The left temple has a 2 by 1.5 inch irregular, red abrasion. The left eyebrow has a linear abraded cut. The left frontal scalp has a couple of irregular red abrasions that measure ¼ and ¾ inch. The right eyebrow has an irregular, red abrasion that measures 2 ½ by 1 inch. There is subscalpular hemorrhage corresponding in location to the abrasions described above.

The right back has a couple of 1/16 inch lesions located 2 ¾ inch right of the midline and separated by ¼ inch of spare skin.

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The dorsum of the hands have multiple red-brown irregular abrasions more prominent on the metacarpophalangeal joints. The dorsum of the right wrist has an irregular red-brown abrasion.

INTERNAL EXAMINATION (EXCLUDING INJURIES)

BODY CAVITIES:

No adhesions or abnormal collections of fluid are in any of the body cavities. All body organs are in normal and anatomic position. The serous surfaces are smooth and glistening.

HEAD (CENTRAL NERVOUS SYSTEM):

The brain weighs 1460 grams. The dura mater and falx cerebri are intact and not adherent to the brain. The leptomeninges are thin and transparent. There is no epidural, subdural, or subarachnoid hemorrhage. The cerebral hemispheres are symmetrical. The structures at the base of the brain, including cranial nerves and blood vessels, are free of abnormality. Sections through the cerebral hemispheres reveal no lesions within the cortex, subcortical white matter, or deep parenchyma of either hemisphere. The cerebral ventricles are of normal caliber. Sections through the brain stem and cerebellum reveal no lesions.

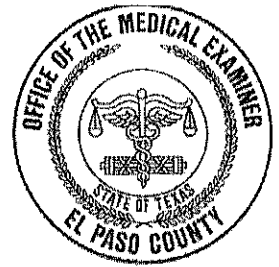
NECK:

Examination of the soft tissues of the neck, including strap muscles and large vessels, reveals no abnormalities. The hyoid bone and larynx are intact. The tongue is normal.

CARDIOVASCULAR SYSTEM:

The heart weighs 360 grams. The pericardial sac is free of significant fluid or adhesions. The pericardial surfaces are smooth and glistening. The coronary arteries arise normally and follow the distribution of a balanced dominant pattern with 75% atherosclerotic stenosis of the left anterior and left circumflex artery and 50% atherosclerotic stenosis of the right coronary artery. The chambers and valves are proportionate. The valves are normally formed, thin and pliable, and free of vegetations and degenerative changes. The myocardium is dark red-brown, firm, and free of focal or regional fibrosis, erythema, pallor, or softening. The atrial and ventricular septa are intact, and the septa and free walls are free of muscular bulges. The aorta and its major branches arise normally and follow the

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usual course, with no significant atherosclerosis. The orifices of the major aortic vascular branches are patent. The vena cava and its major tributaries are patent and return to the heart in the usual distribution and are unremarkable.

RESPIRATORY SYSTEM:

The right and left lungs weigh 370 and 290 grams, respectively. The upper and lower airways are unobstructed, and the mucosal surfaces are smooth and yellow-tan. The pleural surfaces are smooth, glistening, and unremarkable. The pulmonary parenchyma is dark red-purple, and the cut surfaces exude slight amounts of blood and frothy fluid. The pulmonary arteries are normally developed and without thromboemboli and atherosclerosis.

LIVER AND BILIARY SYSTEM:

The liver weighs 1870 grams. The hepatic capsule is smooth, glistening, and intact, and covers red-brown parenchyma. The gallbladder contains 5mL of green watery bile without stones.

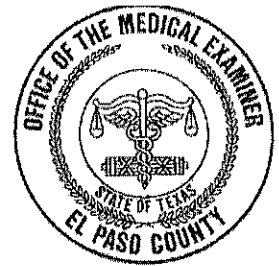
ALIMENTARY TRACT:

The esophagus is lined by gray-white, smooth mucosa. The gastric mucosa is arranged in the usual rugal folds, and the lumen contains 20 mL of bloody fluid. The serosa of the small bowel is smooth and glistening. The small bowel contains partially digested food. There are no mucosal lesions of the small and large bowel. The colon contains formed stool. The appendix is present. The pancreas has a normal tan, lobulated appearance.

GENITOURINARY TRACT:

The right and left kidneys weigh 160 and 170 grams, respectively. The renal capsules are smooth, thin, semitransparent, and strip with ease from the underlying smooth, red-brown, and firm cortical surfaces. The cortices are of normal thickness and are well delineated from the medullary pyramids. The calyces, pelves, and ureters are non-dilated and free of stones. The urinary bladder contains 140mL of clear, yellow urine; the mucosa is gray-tan and smooth. The bilaterally descended testes are of normal size and consistency. The prostate is not enlarged.

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RETICULOENDOTHELIAL SYSTEM:

The spleen weighs 240 grams and has a smooth intact capsule covering red-purple, moderately firm parenchyma. The splenic white pulp is grossly indiscernible. The bone marrow of the rib is red-purple. No regional lymph node enlargement is noted.

ENDOCRINE SYSTEM:

The pituitary gland is of normal size. The thyroid gland is of normal position, size, and texture. The adrenal glands have normal cut surfaces with yellow cortices and gray medullae.

MUSCULOSKELETAL SYSTEM:

The bony framework, supporting musculature, and soft tissues are not unusual. The cervical spinal column is stable on internal palpation.

RADIOGRAPHS

Full body radiograph is obtained.

OTHER LABORATORY TESTS

Blood is submitted for toxicologic analysis.

PATHOLOGIC DIAGNOSES

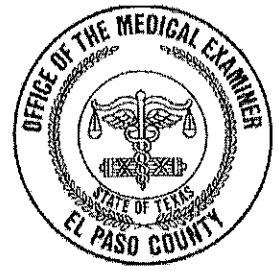
- I. Sudden death during law enforcement subdual and restrain.
- II. Acute methamphetamine toxicity.
- III. Atherosclerotic cardiovascular disease.

OPINION

This 36-year-old man, Michael C. Thompson, died of a sudden death during law enforcement subdual and restrain and acute methamphetamine toxicity and atherosclerotic cardiovascular disease as a significant contributing factors. According to reports the decedent was detained by law enforcement. Autopsy revealed multiple abrasions, coronary artery partial occlusion. Toxicology revealed

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THOMPSON, MICHAEL C.
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amphetamine 97ng/mL, methamphetamine 1,900ng/mL and delta-9 THC 1.6ng/mL. The manner of death is homicide.

Final: 8/17/2022



NMS Labs

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Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Toxicology Report

Report Issued 07/28/2022 13:02

To: 10233
El Paso County Medical Examiner's Office
Attn: Morgue
4505 Alberta Avenue
El Paso, TX 79905

Patient Name THOMPSON, MICHAEL C.
Patient ID ME22-0425
Chain 22230467
DOB 04/22/1986
Sex Male
Workorder 22230467

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Positive Findings:

Analyte	Result	Units	Matrix Source
Amphetamine	97	ng/mL	001 - Femoral Blood
Methamphetamine	1900	ng/mL	001 - Femoral Blood
Delta-9 THC	1.6	ng/mL	001 - Femoral Blood

See Detailed Findings section for additional information

Testing Requested:

Test	Test Name
8051B	Postmortem, Basic, Blood (Forensic)

Specimens Received:

ID	Tube/Container	Volume/ Mass	Collection Date/Time	Matrix Source	Labeled As
001	Clear Top PT with Preservative	6.75 mL	06/27/2022 11:30	Femoral Blood	ME 22-0425

All sample volumes/weights are approximations.
Specimens received on 06/29/2022.

RECEIVED

JUL 29 2022

MEDICAL EXAMINER DEPARTMENT



Detailed Findings:

Analysis and Comments	Result	Units	Rpt. Limit	Specimen Source	Analysis By
Amphetamine	97	ng/mL	5.0	001 - Femoral Blood	LC-MS/MS
Methamphetamine	1900	ng/mL	50	001 - Femoral Blood	LC-MS/MS
Delta-9 THC	1.6	ng/mL	0.50	001 - Femoral Blood	LC-MS/MS

Other than the above findings, examination of the specimen(s) submitted did not reveal any positive findings of toxicological significance by procedures outlined in the accompanying Analysis Summary.

Reference Comments:

1. Amphetamine - Femoral Blood:

Amphetamine (Adderall, Dexedrine) is a central nervous system stimulant. Amphetamine is also a metabolite of methamphetamine, benzphetamine and selegiline. It is used therapeutically in the treatment of narcolepsy and obesity and also in the treatment of attention-deficit hyperactivity disorder (ADHD). Amphetamine has a high potential for abuse. At low doses, amphetamine causes mild stimulation, offset of fatigue, and increase in alertness. It also causes changes in attitude, judgment and impulsivity. At higher doses, amphetamine causes euphoria, excitation, agitation, hypervigilance, rapid speech, dilated pupils which react slowly to light and increased motor restlessness. Pulse and blood pressure may be elevated. Withdrawal from amphetamine following abuse can result in extreme fatigue and uncontrollable sleepiness, agitation, and depression. In the treatment of narcolepsy, amphetamine is administered in daily divided doses of 5 to 60 mg. In abuse doses of several grams may be used on a daily basis in 'runs' lasting a week or more.

Following a single oral dose of 10 mg amphetamine sulfate, a reported peak blood concentration of 40 ng/mL was reached at 2 hr. Following a single 30 mg dose to adults, an average peak plasma level of 100 ng/mL was reported at 2.5 hr. A steady-state blood level of 2000-3000 ng/mL was reported in an addict who consumed approximately 1000 mg daily.

Overdose with amphetamine can produce restlessness, hyperthermia, convulsions, hallucinations, respiratory and/or cardiac failure. Reported blood concentrations in amphetamine-related fatalities ranged from 500-41000 ng/mL (mean 9000 ng/mL).

2. Delta-9 THC (Active Ingredient of Marijuana) - Femoral Blood:

Delta-9 THC is the principle psychoactive ingredient of marijuana (cannabis, hashish). It is also the active component of the prescription medication Marinol®. Marijuana use causes relaxation, distorted perception, euphoria and feelings of well being, along with confusion, dizziness, somnolence, ataxia, speech difficulties, lethargy and muscular weakness.

After smoking a user-preferred 300 mcg/kg dose average plasma THC concentrations at 35 minutes were reported at 16.1 (range 4.7-30.9) ng/mL, and had declined to 1.5 (range 0.4-3.2) ng/mL after 190 minutes. Usual peak levels in serum for 1.75% or 3.55% THC marijuana cigarettes: 50-270 ng/mL at 6 to 9 minutes after beginning smoking, decreasing to less than 5 ng/mL by 2 hrs. Whole blood THC concentrations are typically half those in a corresponding plasma sample.

3. Methamphetamine - Femoral Blood:

d-Methamphetamine is a DEA schedule II stimulant drug capable of causing hallucinations, aggressive behavior and irrational reactions. Chemically, there are two forms (isomers) of methamphetamine: l- and d-methamphetamine. The l-isomer is used in non-prescription inhalers as a decongestant and has weak CNS-stimulatory activity. The d-isomer has been used therapeutically as an anorexigenic agent in the treatment of obesity and has potent CNS-, cardiac- and circulatory-stimulatory activity. Amphetamine and norephedrine (phenylpropanolamine) are metabolites of methamphetamine. d-Methamphetamine is an abused substance because of its stimulatory effects and is also addictive.



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Reference Comments:

A peak blood concentration of methamphetamine of 20 ng/mL was reported at 2.5 hr after an oral dosage of 12.5 mg. Blood levels of 200-800 ng/mL have been reported in methamphetamine abusers who exhibited violent and irrational behavior. High doses of methamphetamine can also elicit restlessness, confusion, hallucinations, circulatory collapse and convulsions.

*In this case, the level of methamphetamine determined has not been differentiated according to its isomeric forms. Differentiation of the isomers of methamphetamine is available upon request.

Chain of custody documentation has been maintained for the analyses performed by NMS Labs.

Unless alternate arrangements are made by you, the remainder of the submitted specimens will be discarded six (6) weeks from the date of this report; and generated data will be discarded five (5) years from the date the analyses were performed.

Workorder 22230467 was electronically signed on 07/28/2022 12:11 by:

Meaghan M. Ringel, M.S.F.S.
Certifying Scientist

Analysis Summary and Reporting Limits:

All of the following tests were performed for this case. For each test, the compounds listed were included in the scope. The Reporting Limit listed for each compound represents the lowest concentration of the compound that will be reported as being positive. If the compound is listed as None Detected, it is not present above the Reporting Limit. Please refer to the Positive Findings section of the report for those compounds that were identified as being present.

Test 50010B - Amphetamines Confirmation, Blood - Femoral Blood

-Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Amphetamine	5.0 ng/mL	MDMA	5.0 ng/mL
MDA	5.0 ng/mL	Methamphetamine	50 ng/mL
MDEA	5.0 ng/mL		

Test 52198B - Cannabinoids Confirmation, Blood - Femoral Blood

-Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
11-Hydroxy Delta-9 THC	1.0 ng/mL	Delta-9 THC	0.50 ng/mL
Delta-9 Carboxy THC	5.0 ng/mL		

Test 8051B - Postmortem, Basic, Blood (Forensic) - Femoral Blood

-Analysis by Enzyme-Linked Immunosorbent Assay (ELISA) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Amphetamines	20 ng/mL	Cocaine / Metabolites	20 ng/mL
Barbiturates	0.040 mcg/mL	Fentanyl / Acetyl Fentanyl	0.50 ng/mL
Benzodiazepines	100 ng/mL	Methadone / Metabolite	25 ng/mL
Buprenorphine / Metabolite	0.50 ng/mL	Methamphetamine / MDMA	20 ng/mL
Cannabinoids	10 ng/mL	Opiates	20 ng/mL



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Analysis Summary and Reporting Limits:

<u>Analyte</u>	<u>Rpt. Limit</u>	<u>Analyte</u>	<u>Rpt. Limit</u>
Oxycodone / Oxymorphone	10 ng/mL	Phencyclidine	10 ng/mL

-Analysis by Headspace Gas Chromatography (GC) for:

<u>Analyte</u>	<u>Rpt. Limit</u>	<u>Analyte</u>	<u>Rpt. Limit</u>
Acetone	5.0 mg/dL	Isopropanol	5.0 mg/dL
Ethanol	10 mg/dL	Methanol	5.0 mg/dL