BOARD OF MEDICOLEGAL INVESTIGATIONS

OFFICE OF THE CHIEF MEDICAL EXAMINER

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Oklahoma City, Oklahoma 73117
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1115 West 17th
Tulsa, Oklahoma 74107
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By _____

Date _____

REPORT OF INVESTIGATION BY MEDICAL EXAMINER

DECEDENT First-Middle-Last Names (Please avoid use of initials)	Age	Birth Date	Race	Sex
GEORGE L CLINKSCALE	24	1/27/1987	BLACK	M

HOME ADDRESS - No. - Street, City, State
3010 EAST 8TH STREET APARTMENT 4204, TULSA, OK

EXAMINER NOTIFIED BY - NAME - TITLE (AGENCY, INSTITUTION, OR ADDRESS) TJ COMPTON, ST FRANCIS HOSPITAL				DATE 9/22/2011	TIME 3:10
INJURED OR BECAME ILL AT (ADDRESS) 9120 EAST BROKEN ARROW EXPRESSWAY	CITY TULSA	COUNTY TULSA	TYPE OF PREMISES CHURCH	DATE 9/22/2011	TIME 0:39
LOCATION OF DEATH ST FRANCIS HOSPITAL	CITY TULSA	COUNTY TULSA	TYPE OF PREMISES HOSPITAL	DATE 9/22/2011	TIME 2:56
BODY VIEWED BY MEDICAL EXAMINER 1115 WEST 17TH STREET	CITY TULSA	COUNTY TULSA	TYPE OF PREMISES MORGUE	DATE 9/22/2011	TIME 13:31

IF MOTOR VEHICLE ACCIDENT: ☐ DRIVER ☐ PASSENGER ☐ PEDESTRIAN

TYPE OF VEHICLE: ☐ AUTOMOBILE ☐ LIGHT TRUCK ☐ HEAVY TRUCK ☐ BICYCLE ☐ MOTORCYCLE ☐ OTHER: _____

DESCRIPTION OF BODY

EXTERNAL PHYSICAL EXAMINATION

	RIGOR	LIVOR
Jaw	☑ Complete	☑ Color _____
Neck	☑ Absent	☐ Lateral ☐
Arms	☑ Passing	☐ Posterior ☐
Legs	☑ Passed	☐ Anterior ☐
	☐ Decomposed	Regional _____

EXTERNAL OBSERVATION

Beard BLACK Hair BLACK
Eyes: Color BROWN Mustache BLACK
Opacities _____
Pupils: R 6MM L 6MM
Body Length 73 INCHES Body Weight 269 LBS

	NOSE	MOUTH	EARS
BLOOD	☐	☐	☐
OTHER	☐	☐	☐

Significant observations and injury documentations - (Please use space below)

** SEE AUTOPSY PROTOCOL **

Probable Cause of Death:

SUDDEN EXERTIONAL DEATH

Due To: **COMPLICATIONS OF SICKLE CELL TRAIT**

Other Significant Medical Conditions:

HYPERTENSION

Manner of Death:

Natural ☑ Accident ☐
Suicide ☐ Homicide ☐
Unknown ☐ Pending ☐

Case disposition:

Autopsy Yes ☑ No ☐
Authorized by _____
Pathologist JOSHUA LANTER M.D.
Not a medical examiner case ☐

MEDICAL EXAMINER:
Name, Address and Telephone No.

JOSHUA LANTER M.D.
1115 W. 17TH
TULSA, OK 74107

I hereby state that, after receiving notice of the death described herein, I conducted an investigation as to the cause and manner of death, as required by law, and that the facts contained herein regarding such death are true and correct to the best of my knowledge.

Signature of Medical Examiner JOSHUA LANTER M.D.

Computer generated report **1103854**

Date Signed 1/4/2012

Date Generated

CME-1 (REV 7-98)

Board of Medicolegal Investigations
Office of the Chief Medical Examiner
1115 West 17th Street
Tulsa, Oklahoma 74107-1800
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CERTIFICATION
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By_____

Date_____

REPORT OF AUTOPSY

Decedent	Age	Birth Date	Race	Sex	Case No
GEORGE L CLINKSCALE	**24**	**1/27/1987**	**BL**	**M**	**1103854**

Type of Death	Means	ID By	Authority for Autopsy
Violent, unusual or unnatural		**Hospital Staff**	**JOSHUA LANTER, M.D.**

Present at Autopsy
Ashley Hancock

PATHOLOGIC DIAGNOSES

I. Medical history of sickle cell trait
   A. Hemoglobin electrophoresis (see submitted report): hemoglobin pattern consistent with sickle cell trait, heterozygous
   B. Histological evidence of sickled erythrocytes within various organs

II. Fracture of 5th cervical vertebrae
   A. Fractures involving right C5 lamina and right C5 pedicle; spinal cord appears intact
   B. Radiographic evidence of epidural hematoma along the right posterior aspect of the spinal canal extending from the C4-C5 to C6 level (Saint Francis Hospital, 09/21/2011)

III. Cardiovascular System
   A. Cardiomegaly with concentric left ventricular hypertrophy; consistent with hypertensive cardiomyopathy

CAUSE OF DEATH: SUDDEN EXERTIONAL DEATH DUE TO COMPLICATIONS OF SICKLE CELL TRAIT

The facts stated herein are true and correct to the best of my knowledge and belief.

JOSHUA LANTER, M.D.	Forensic Pathologist	OCME, Eastern Division	9/22/2011 1:31 PM
		Location of Autopsy	Date and Time of Autopsy

OFFICE OF THE CHIEF MEDICAL EXAMINER
Decedent: GEORGE L CLINKSCALE CASE NO: 1103854

MEDICOLEGAL INVESTIGATION

I. CIRCUMSTANCES OF DEATH:
This 24 year old male (DOB: 01/27/1987) reportedly had complaints of shortness of breath and "hurting all over" following a boxing competition. The decedent was taken to Saint Francis Hospital in Tulsa, Oklahoma where he was pronounced shortly after his arrival.

II. AUTHORIZATION:
The postmortem examination is performed under the authorization of the Office of the Chief Medical Examiner, Eastern Division, Tulsa, Oklahoma.

III. IDENTIFICATION:
The body is identified by T. J. Compton of Saint Francis Hospital. Digital photographs of the deceased are taken.

POSTMORTEM EXAMINATION

I. CIRCUMSTANCES OF THE EXAMINATION:
The postmortem examination of George Clinkscale is performed at the Office of the Chief Medical Examiner, Eastern Division, Tulsa, Oklahoma, on September 22, 2011, commencing at 1331 hours. Assisting in the examination is Ashley Hancock.

II. CLOTHING AND PERSONAL EFFECTS:
No clothing worn

III. EXTERNAL EVIDENCE OF RECENT MEDICAL THERAPY:
1. Endotracheal tube within mouth, trachea secured with white tape
2. Cervical spine stabilization collar around neck
3. Defibrillator pads and cardiac monitor pads of torso
4. Intravascular access, left and right antecubital fossae
5. Intravascular access, left anterior wrist
6. Intravascular access, right groin
7. Catheter within urethra
8. Pulse oximetry lead of right first finger
9. Needle puncture of right anterior wrist
10. White hospital band of right wrist labeled "Clinkscale, George"
11. Catheter within rectum

EXTERNAL EXAMINATION

The body is that of an unembalmed, well developed, well nourished male appearing consistent with the recorded age of 24 years. The body weight is measured at 269 pounds. The body

length is measured at 73 inches. The state of preservation is good in this unembalmed body. Rigor mortis is moderately advanced in arms, legs, and jaw. Lividity is not identified. The chest and back are symmetrical with normal conformation. The neck is symmetrical and without masses or unusual mobility. Both upper and lower extremities are symmetrical throughout. The head, neck, and shoulders are not congested. There is no peripheral edema present. Personal hygiene is good. No unusual odor is detected as the body is examined. The hair is black and worn to a short length. It represents the apparent natural color. There is facial hair composed of a black beard and mustache. The body hair is of normal male distribution. The pupils are round, regular, equal, and somewhat dilated. The sclerae are normal in color. The orbital and periorbital tissues are unremarkable. The conjunctival surfaces are not remarkable. The irides are brown in color. The mouth shows the teeth of upper maxilla and mandible to be in a fair state of repair. The gums are normal in appearance. The oral cavity is normal. There are no injuries to the lip or tongue. The nose is symmetrical and the air passages are open. The external ears are normal in appearance and without injury. The male breasts are normal. Examination of the skin reveals tattoos of various designs of right and left arms and chest including a tattoo of a cross and "Jesus" of left lateral upper arm and a tattoo of "King of the Field" of the back. Examination shows no significant external lymphadenopathy.

INJURIES

There is fracture of the fifth cervical vertebra involving the right C5 lamina and C5 pedicle. The spinal cord appears intact. Acute hemorrhage is noted in the paravertebral soft tissues extending from C3 to C7.

BODY CAVITIES

The body is opened through the customary "Y" shaped incision.

Subcutaneous fat is normally distributed, moist, and bright yellow. The musculature through the chest and abdomen is rubbery, maroon, and shows no gross abnormality.

The sternum is removed in the customary fashion. The organs of the chest and abdomen are in normal position and relationship. The diaphragms are intact bilaterally.

PARIETAL PLEURA:

Smooth, glistening intact membrane without associated adhesions or abnormal effusions.

PERICARDIUM:

Is a smooth, glistening, intact membrane, and the pericardial cavity, itself, contains the normal amount of clear, straw-colored fluid.

PERITONEUM:

Smooth, glistening membrane in both the abdominal and pelvic cavities. The peritoneal cavity contains no abnormal fluid or adhesions.

HEART:

Weighs 550 gm. It has a normal configuration and location. There are no adhesions between the parietal and visceral pericardium, and the latter is a smooth, glistening, fat laden characteristic membrane. The coronary arteries arise and distribute normally with no significant atherosclerosis. The coronary ostia are normally located and widely patent. The chambers and atrial appendages are unremarkable. The endocardium is a smooth, gray, glistening, translucent membrane uniformly. The myocardium is intact, rubbery, and red-tan, with the left ventricle measuring 2.1 cm and the right ventricle measuring 0.3 cm. The papillary muscles and chordae tendineae are intact and unremarkable. The aorta (arch, thoracic and abdominal) and its major branches are unremarkable. The vena cava and major tributaries are widely patent.

NECK ORGANS:

Musculature is normal, rubbery, and maroon, and the organs are freely movable in a midline position. The tongue is intact and normally papillated, without evidence of tumor or hemorrhage. The hyoid bone is intact. The cartilaginous structures forming the larynx are intact and without abnormality. The thyroid gland is symmetric, rubbery, light tan to maroon, and in its normal position without evidence of neoplasm. The epiglottis is a characteristic plate-like structure which shows no evidence of edema, trauma, or other gross pathology. The larynx is comprised of unremarkable vocal cords and folds, is widely patent without foreign material, and is lined by a smooth, glistening membrane. There are no petechiae of the epiglottis, laryngeal mucosa, or thyroid capsule.

THYMUS:

No significant tissue is identified grossly.

LUNGS:

The right lung weighs 710 gm, and the left weighs 700 gm. Visceral pleurae are smooth, glistening, and intact with minimal anthracosis and no bleb formation. The overall configuration is normal. The trachea is widely patent and lined by characteristic pink membrane. Likewise, the major bronchi and bronchioles bilaterally are patent, normally formed, and contain no significant occlusive material. The pulmonary arterial tree is free of emboli or thrombi. The parenchyma is congested, varies from pink-tan to dark purple, and exudes moderate amounts of blood and clear, frothy fluid from its cut surfaces. There is no evidence of consolidation,

granulomatous, or neoplastic disease. Hilar lymph nodes are within normal limits with relation to size, color, and consistency.

G.I. TRACT:

The esophagus shows an unremarkable mucosa, a patent lumen, and no evidence of gross pathology. The esophagogastric junction is unremarkable. The stomach is of normal configuration, is lined by a smooth, glistening, intact mucosa, has an unremarkable wall and serosa, and contains approximately 120 ml of green homogenate which has passed to the duodenum. The duodenum, itself, is patent, shows an unremarkable mucosa and no evidence of acute or chronic ulceration. Jejunum and ileum are unremarkable and contain soft brown fecal material. There is no Meckel's diverticulum. The ileocecal valve is intact and unremarkable. The appendix is identified. The colon is examined segmentally and shows no evidence of neoplasm or trauma. There are no diverticula. Anus and rectum are unremarkable.

LIVER:

Weighs 2050 gm. It is of normal configuration, rubbery, tan, and intact. Cut surface shows no pathology.

GALLBLADDER:

Lies in its usual position, contains liquid bile, no calculi, and shows a normal mucosa. The biliary tree is intact and patent without evidence of neoplasm or calculi.

PANCREAS:

Lies in its normal position, shows a normal configuration, is pink-tan and characteristically lobulated with no apparent gross pathology.

SPLEEN:

Weighs 310 gm. The capsule is intact. The organ is rubbery, maroon, and shows characteristic follicular pattern.

ADRENALS:

Lie in their usual location, show yellow cortices and tan to gray medullae.

KIDNEYS:

The right kidney weighs 240 gm and the left weighs 240 gm. Both are configurated normally with no abnormality. The capsules strip with ease bilaterally and the subcapsular surfaces are smooth. Sections show the organs to be moderately congested with unremarkable cortices, medullae, calyces and pelves. Ureters and blood vessels are patent and unremarkable.

URINARY BLADDER:

Contains no urine. Its serosa and mucosa are unremarkable.

MALE GENITALIA:

The prostate is symmetric, rubbery, gray-tan, and of normal size. The seminal vesicles are unremarkable. The prostatic urethra is unremarkable. The testes are bilaterally present and show no evidence of tumor, trauma, or inflammation. The investing membranes are unremarkable as is the epididymis.

BRAIN AND MENINGES:

The scalp is opened through the customary intermastoid incision and shows no trauma. The calvarium is removed through the use of an oscillating saw and is intact without evidence of osseous disease. The brain weighs 1460 gm. Dura and leptomeninges are unremarkable without evidence of trauma. Cranial nerves and circle of Willis arise and distribute normally and show no significant pathology. Externally the brain is normally configurated and symmetric, and multiple serial sections of cerebral hemispheres, midbrain, pons, medulla, and cerebellum show no gross pathological change apart from moderate congestion. The ventricular system is also symmetric and unremarkable. The base of the skull is intact without osseous abnormality.

RIBS:

Intact.

PELVIS:

Intact.

VERTEBRAE:

Injuries involving the cervical vertebrae are described in the “Injuries” section above.

BONE MARROW:

Moist and dark red. Unremarkable.

TOXICOLOGY

See attached report.

MICROSCOPIC EXAMINATION

Heart:
Sections of the left and right ventricular walls are taken. Myocardial fibers appear viable without necrosis or inflammation. Hypertrophic changes are noted of the myofibers. Sickled erythrocytes are noted.

Lungs:
Sections of each lung are taken. Alveolar septae are mostly thin and delicate although an increased mixed inflammatory cell element is noted in sections. There is congestion and edema. There is no significant bronchiolar or vascular acute inflammation. Numerous intra alveolar macrophages contain ochre colored pigment. Sickled erythrocytes are noted. There are no antemortem thrombi.

Liver:
A section shows a normal lobular architecture with congestion. The sinusoids appear dilated and contain sickled erythrocytes. There is no cirrhosis, steatosis, or active lobulitis.

Spleen:
Sections show no specific pathologic changes.

Kidney:
Sections show no specific pathologic changes of the parenchyma. Sickled erythrocytes are identified.

Pancreas:
A section shows no specific pathologic changes. Sickled erythrocytes are noted.

Brain:
A section shows no specific pathologic changes of the parenchyma. Sickled erythrocytes are noted.

OPINION

The cause of death is sudden exertional death due to complications of sickle cell trait. The cause of death was derived from the findings of the autopsy which included ancillary studies and review of the medical records from Saint Francis Hospital preceding the death. Medical records suggested a past medical history of sick cell anemia and hemoglobin electrophoresis (SPEC #:0922:PN:C02446R) confirmed sickle cell trait within the decedent. A potential complication of sickle cell trait is unexpected exercise/exertional related death. Susceptible individuals with sickle cell trait who undergo intense exercise may develop complications when they become dehydrated, hypoxic, or hyperthermic. Sudden exercise/exertional related death due to sickle cell trait may involve acute exertional rhabdomyolisis, although sudden idiopathic death can occur, and a review of the decedent's medical records did show evidence of rhabdomyolisis (characterized by elevation of serum creatine kinase and potassium levels.) It is thought that some individuals with sickle cell trait are more susceptible to the stressors of intense physical activity and severe complications including sudden death can occur without appropriate medical treatment. Additional findings at autopsy included a fracture involving the right pedicle and lamina of the 5th cervical vertebra; however injury to the spinal cord was not identified. Radiologic examination (Saint Francis Hospital, 09/21/2011) further delineated this fracture and also described an epidural hematoma within the spinal canal at this level. Although this injury had potential to be severe, it is not felt to be contributory to the death as the death would have likely occurred had the trauma not existed. Another finding at autopsy included hypertensive changes of the myocardium of the heart. The manner of death is ruled as natural.

BOARD OF MEDICOLEGAL INVESTIGATIONS

OFFICE OF THE CHIEF MEDICAL EXAMINER

901 N.Stonewall
Oklahoma City, Oklahoma 73117

REPORT OF LABORATORY ANALYSIS

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By _____

Date _____

ME CASE NUMBER: 1103854

LABORATORY NUMBER: 113454

DECEDENT'S NAME: GEORGE L CLINKSCALE

DATE RECEIVED: 9/26/2011

MATERIAL SUBMITTED: BLOOD, VITREOUS, LIVER, BRAIN, GASTRIC, HOSPITAL SPECIMENS

HOLD STATUS: 1 YEAR

SUBMITTED BY: ASHLEY HANCOCK

MEDICAL EXAMINER: JOSHUA LANTER M.D.

NOTES:

ETHYL ALCOHOL:

Blood: NEGATIVE (HOSPITAL SPECIMEN; 09/21/2011 AT 2250 HRS)

Vitreous:

Other:

CARBON MONOXIDE

Blood:

TESTS PERFORMED:

HOSPITAL BLOOD ALKALINE DRUG SCREEN
HOSPITAL BLOOD EIA - Amphetamine, Methamphetamine, Fentanyl, Cocaine, Opiates, PCP, Barbiturates, Benzodiazepines
(The EIA panel does not detect Oxycodone, Methadone, Lorazepam, or Clonazepam)

RESULTS:

BLOOD (HOSPITAL SPECIMEN; 09/21/2011 AT 2255 HRS)
LIDOCAINE - DETECTED (NOT CONFIRMED)
ETOMIDATE - DETECTED (NOT CONFIRMED)

10/18/2011
DATE

Byron Curtis, Ph.D., DABFT, Chief Forensic Toxicologist