



OFFICE OF THE
COUNTY MEDICAL EXAMINER

5201 HARRY HINES BLVD.
DALLAS, TEXAS 75225

Autopsy Number: K63-356

Name: OSWALD, Lee Harvey

Age: 24 Race: White Sex: Male

Autopsy date: 11-24-63, 2:45 P.M.

Coroner: Judge Pierce McBride

Autopsy by: Earl F. Rose, M. D.

Assistant: Sidney C. Stewart, M. D.

EXTERNAL EXAMINATION:

External examination reveals a 5 foot, 9 inch white male, the estimated weight is 150 pounds. Rigor is not present, slight cooling of the body. There is faint posterior mottling lividity.

Identification bands on the left wrist, the right wrist, the left great toe. The head is examined. The hair is brown, slightly wavy. Small amount of dried blood in the hair which has run from the hairline to the right and backward. Slight frontal balding. To the right of the midline over the forehead is a $1/2 \times 1/16$ inch crusted superficial abrasion. The hairline, left temporal region, is a $1/16$ inch very superficial abraded area. There is a left periorbital hematoma which is purple in the central portion, fading at the margins to a faint lemon-yellow. Total diameter of this is $1 \frac{3}{4} \times 1 \frac{1}{2}$ inch. The irides are grey-blue, the pupils are equal at 8 mm. The sclera and conjunctiva are not remarkable. Poorly defined scar on the dorsum of the nose which measures $\frac{1}{2} \times \frac{1}{2}$ inch. There is black material in the nares. Midline, upper lip, terminating at the vermillion margin is a $\frac{1}{2}$ inch pale scar. To the left of the midline, the upper lip, is a $1/16$ inch abrasion. The buccal cavity is otherwise not remarkable. Oral hygiene is fair with some fillings. The tongue is not remarkable. The beard measures between 1 to 2 mm. Examination of the neck is made. At the upper end of the right sternocleidomastoid over the skin is a transverse very superficial $3/4$ inch scratch with some reddish antiseptic type of paint surrounding this. Hair distribution is normal. The pubic hair has been shaved. The penis is circumcised. The testes are descended. The abdomen is flat.

Over the left pectoral region, $1 \frac{1}{2}$ inches from the top of the head and $2 \frac{3}{4}$ inches to the left of the midline there is a $1 \frac{1}{2}$ inch wound. The edges of this are sharp. Over the left chest is an oblique wound which originates 17 inches from the top of the head and runs forward, downward toward the midline anteriorly measuring $7 \frac{1}{2}$ inches and closed by 12 running black sutures. This wound goes inferior to the left nipple. Over the lateral aspect of the left arm, 16 inches from the top of the head is a $5/8 \times 3/8$ inch wound. It goes into the subcutaneous tissue. 18 inches from the top of the head over the lateral aspect anteriorly of the right arm there is a $1 \frac{1}{2} \times \frac{1}{2}$ inch wound which goes into the subcutaneous tissue. $21 \frac{1}{2}$ inches from the top of the head originating slightly below the nuchal ridge running in the midline to above the nuchal ridge is a $10 \frac{1}{2}$ inch anterior midline wound closed by 5 wire sutures. Above

the medial malleolus on the right side there is a $1\frac{3}{4}$ inch transverse cut-down incision. Cephalad to this is a transverse $1\frac{3}{4}$ inch superficial transverse incised wound. Above the left medial malleolus there is a $1\frac{1}{2}$ inch cut-down type of incised wound. To the left of the midline region of the second thoracic vertebra there is a very faint $\frac{3}{8}$ inch bluish discolored area. In the right antecubital fossa is a very tiny needle puncture type of wound surrounded by bluish discoloration. In the left antecubital fossa there are three small needle puncture type of wounds surrounded by bluish discoloration. The nails are examined. They are somewhat dirty although quite well cared for. No evidence of injury is noted. On the midportion dorsum of the left hand, there is a poorly defined pale white oblique $\frac{1}{2}$ inch scar. Over the volar aspect of the right wrist there is a transverse superficial $\frac{1}{4}$ inch abrasion. Volar aspect of the left wrist there is a transverse $1\frac{3}{4}$ inch slightly raised white scar. Medial aspect of the right knee reddish very poorly defined $\frac{7}{8} \times 1\frac{1}{4}$ inch reddish discoloration. Over the left arm, below the deltoid there is a transverse $\frac{5}{8} \times \frac{3}{4}$ inch somewhat puckered and irregular scar. A few striae along the lateral aspect of the thighs. Some of the hair of the chest has been shaved. In addition, to the left of the midline there is a round poorly defined round impression on the skin, the diameter of which is 2 inches. Over the medial aspect mid-distal third of the left arm there is a $1\frac{1}{2}$ inch vertical scar with cross-hatching.

23 inches from the top of the head and $3\frac{3}{8}$ inches to the left of the midline anteriorly and $10\frac{3}{4}$ inches to the left of the midline posteriorly, over the lower aspect of the left chest there is an entrance type of wound which measures $1\frac{1}{4} \times \frac{5}{16}$ inch in diameter. This is surrounded by a contusion ring, the total diameters of the contusion ring are $\frac{3}{8}$ of an inch.

22 inches from the top of the head and $9\frac{3}{4}$ inches to the right of the midline anteriorly and $3\frac{1}{4}$ inches to the right of the midline of the back there is a vertical 2×1 inch gapping wound. Posterior to this by $\frac{1}{2}$ inch there is a $\frac{3}{4} \times \frac{3}{8}$ inch irregular contused area.

INCISIONS: The standard "Y" thoracoabdominal and intermastoid incisions are utilized. Reflecting the skin there is found to be a wound between the fourth and fifth rib which extends through the soft tissue and measures 6 inches in length. This conforms to the wound on the left chest. The incision is continued through the abdominal wound as well as the thoracotomy wound to the left of the midline of the chest.

SEROUS CAVITIES: Examination of the serous cavities is made. In the left pleural space approximately 175 cc. of blood. In the right pleural space there is in excess of 600 cc. of blood. In the peritoneal cavity there is in excess of 1000 cc. of blood with clot formation. In addition, there is massive retroperitoneal hemorrhage. The omentum adjacent to the transverse colon and stomach is hemorrhagic and irregularly torn.

The abdominal panniculus measures $1\frac{3}{4}$ inches.

THE COURSE OF THE WOUND IS FOLLOWED. It is found to notch the undersurface of the seventh rib at the costochondral junction, this is surrounded by hemorrhage. In its course it notches the diaphragmatic attachment in this region, however, the left lung is not penetrated. The course is found to go from left to right and backward. In its course it is found to strike the anterior edge of the spleen and there is a cruciate laceration of the spleen measuring approximately 1.5×2 cm.

The missile is found to penetrate the stomach along the greater curvature of the body of the stomach, the penetration measuring 9 mm. It exits from the stomach along the posterior wall, lesser curvature, 2 cm. distal to the cardioesophageal junction. The penetration measures 3 mm. It pursues a course backwards and to the right slightly caudad to the celiac axis and there is extensive hemorrhage in this area. The anterior and right antero-lateral aspect of the aorta is torn with the superior mesenteric artery being severed. The right renal artery shows destruction and hemorrhage along the cephalad portion. The right renal vein is torn and the tear involves the inferior vena cava, the dorsal surface. It courses through the upper pole of the right kidney along the anterior surface causing a jagged and irregular laceration covering a distance of 5 x 2 cm. with penetration into the calyces. It becomes peritonealized in the hepatorenal pouch and there is a jagged and irregular laceration of the liver covering a distance of 9.5 x 2 x 2 cm. From the liver it penetrates the diaphragm posteriorly on the right side. It then passes adjacent to the lung in the pleural space and the right lung is not penetrated. The eleventh rib to the right of the midline is irregularly fractured and an exit type of wound in this region and in the soft tissue along the posterior axillary line right side there is an incised wound and fragmentation of the rib.

NECK ORGANS: The neck organs are examined. They are not remarkable. The hyoid is intact. No evidence of injury is noted. The thyroid gland is not remarkable grossly.

LUNGS: The trachea and bronchi are not remarkable. The right lung is quite well aerated. The left lung is atelectatic. The peribronchial tissue is not remarkable; however, there is hemorrhage in the posterior mediastinum.

HEART: Examination of the right atrium as well as the right ventricle and a pulmonary artery shows frothing bubbles. The epicardium is markedly congested with petechial hemorrhages, more marked over the left ventricular portion. The heart weighs 330 gm. There are a few subendocardial petechial hemorrhages. Along the anterior right ventricular surface there is a single suture. This is in the epicardial fat. The right ventricle measures 2 to 3 mm., the left 1.2 to 1.3 mm. The valvular circumferences are as follows: aortic valve - 7 cm., mitral valve - 10.5 cm., tricuspid valve - 11.5 cm., and pulmonic valve - 7 cm. The coronary ostia are in the normal location. The coronary arteries are examined in situ, found to be thin, delicate, of normal distribution and free of occlusions. There are left ventricular myocardial hemorrhages.

LIVER: The liver weighs 1260 gm. The penetration of the liver has previously been described.

GALLBLADDER & BILIARY TREE: Not remarkable.

PORTACAVAL SYSTEM: Examination of the portacaval system is made. There is frothing blood in the portacaval system. Extensive hemorrhage is noted to surround this, particularly in the region of the pancreas.

PANCREAS: The pancreas is surrounded by hemorrhage. The parenchyma of the pancreas is not penetrated and the ductal system is not remarkable.

SPLEEN: The spleen weighs 200 gm. The penetration of the spleen has previously been described.

DIAPHRAGM: The penetrations of the diaphragm have previously been described.

RETROPERITONEAL TISSUE: There is massive hemorrhage.

GRAND VESSELS: The penetration of the aorta has previously been described. The aorta is otherwise smooth and elastic. There is extensive periaortic hemorrhage which extends above the diaphragm in the posterior mediastinal tissue.

KIDNEYS: The kidneys weigh 450 gm. The destruction to the right kidney has previously been described. The capsule strips with slight difficulty. The cortical surfaces are smooth and pale. The corticomedullary junction is indistinct. The cortices measure 5 to 7 mm. There is hemorrhage into the parenchyma with destruction of the right kidney as previously described. The penetration of the calyces has also been described. About the pelvis of the right kidney there is extensive hemorrhage. The pelvis and ureters are otherwise not remarkable. The bladder contains bloody urine. The prostate is grossly not remarkable.

ADRENALS: The adrenals are both surrounded by hemorrhage, however, both are intact.

INTESTINAL TRACT: The small and large bowel are examined. They are free of penetrations. The appendix is identified. The large bowel contains some formed stool. The penetrations of the stomach have previously been described and there is blood in the stomach. The rugal pattern is not remarkable. The duodenum is not remarkable.

THYMUS: The thymus weighs approximately 15 gm., is quite fibrotic.

SCALP, SKULL, CRANIAL CAVITY & DURA: Not remarkable. No evidence of injury is noted.

BRAIN: The brain weighs 1450 gm. The brain is symmetrical. The external surface of the brain is not remarkable. Configuration is normal. Multiple sections through the brain are taken and fail to reveal any abnormalities. The ventricular system is symmetrical. No abnormalities are encountered. The vascular system is not remarkable and the vessels are thin and delicate. The calvarium is not remarkable. The cervical vertebra and odontoid are not remarkable.

MICROSCOPIC:

Aorta: There is disruption with fresh hemorrhage. No inflammation or organization.

Heart: There are hemorrhages in the epicardial fat, mild interstitial edema and focal fragmentation of the muscle fibers.

Lung: Areas of atelectasis and focal alveolar hemorrhagic extravasations.

Liver: Disruption with fresh hemorrhages, otherwise non-contributory.

Bowel: There are disruptions of the stomach with hemorrhages adjacent. The remainder of the bowel sections are non-contributory.

Spleen: There is disruption along one margin, otherwise non-contributory.

Thyroid: Non-contributory.

Pancreas: Non-contributory.

Gallbladder: Non-contributory.

Prostate: Non-contributory.

Lymph Nodes: Non-contributory.

Adrenals: There is extensive fresh hemorrhage adjacent, otherwise non-contributory.

Skin: Section through the entrance wound shows disruption with fresh hemorrhages. There is no organization or inflammation. Some amorphous debris and fibers in the depths of the wound.

Kidney: Sections show disruption of the right kidney with hemorrhages which are marked in the pelvic fat and perirenal tissue.

Central Nervous System: Multiple sections are examined and they are non-contributory.

FINDINGS:

Chest, left, gunshot wound.
 Penetration of the spleen, stomach, aorta, kidney, liver and diaphragm.
 Massive retroperitoneal hemorrhage.
 Massive peritoneal hemorrhage.
 Right and left hemothorax.
 Heart, left ventricular epicardial and myocardial hemorrhages.
 Atrium, right; ventricle, right; pulmonary artery, - air.
 Lung, left, atelectasis.
 Chest, left, thoracotomy.
 Abdomen, laparotomy incision.
 Arm, left; arm, right; ankle, right; ankle, left - cut-down incisions.
 Chest, right, incised wound.
 Eye, left, periorbital hematoma.
 Forehead and lip, abrasion.
 Left wrist and left arm, scars.

CAUSE OF DEATH:

Hemorrhage, secondary to gunshot wound of the chest.

Edrl F. Rose, M.D.
 Edrl F. Rose, M. D.

DALLAS COUNTY HOSPITAL DISTRICT
(Parkland Memorial Hospital)

Date 11/26/63

TOXICOLOGIC REPORT

Case of Lee Harvey Oswald Autopsy No. ML63-356

Autopsy by Dr. Rose On 11/24/63

Examined for Alcohol and barbiturate.

Organs submitted Blood (see also report on skin, below).

RESULT OF ANALYSIS:

Poisonous Gases -

Volatile Poisons Negative.

Acid-Ether soluble poisons Negative.

Alkaline-Ether soluble poisons -

Ammonia-Ether or imm.-Chloroform soluble poisons -

Metallic Poisons -

Mineral acids and alkalis -

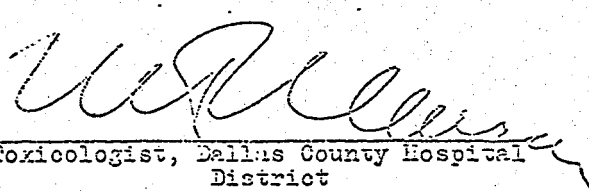
Halogens and their salts -

Salts of Oxy-acids -

Poisons isolated by special methods -

REMARKS: Blood type = "A"

No nitrates were detected around the bullet hole in the specimen of skin and specimen of ligament submitted.


Toxicologist, Dallas County Hospital
District

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DALLAS COUNTY CRIMINAL INVESTIGATION LABORATORY
 (Parkland Memorial Hospital)
 Dallas, Texas
 BLOOD ALCOHOL ANALYSIS

Case of ML65-356 Referred by Medical Staff
 Blood drawn by _____ At Parkland Hospital
 Date _____ Time _____ AM. Antiseptic used _____
 Officers, identification, etc.: _____

Specimen received from: _____
 Dallas P.D. Lock Box at _____ AM Date _____ By _____
 E.C. Lab. Lock Box at 1:35 PM Date 11/25/65 By W. Patterson
 Other (Describe): Normal ice box.

Specimen transferred to W. P. Ray (Analyst).
 Time 1:30 AM Date 11/25/65 By W. Patterson
 Specimen container: One test tube stoppered with rubber stopper.

Information from: _____
Analytical
 Specimen: _____ Date and time of analysis 11/25/65 2:20 AM
 Whole Blood
 Plasma or serum Analyst: W. P. Ray

Date (Micro-Greenberg Method):

U ₁ = 2.82	U ₁ = 2.78	Calculation: Negative for alcohol.
U ₂ = 2.82	U ₂ = 2.78	
U av. = 2.82	U av. = 2.78	
S ₁ = 2.85	S ₁ = 0.10	
S ₂ = 2.85	S ₂ = 0.10	
S av. = 2.85		

Gas chromatogram Yes
 No

Result: Alcohol content Negative

W. P. Ray
 Dallas City-County Criminal
 Investigation Laboratory

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