# **AUTOPSY REPORT**

03.04.19

DATE OF REPORT:

AUTOPSY NO:	PM.HC.003.19
HOSP NO: NAME: ADDRESS:	81 54 76 OCHIGBO JUMBO, Ogah Behind Timber Shed, New Nyanya, Karu LGA, Nasarawa State
AGE:	41yrs
SEX:	Male
RACE/TRIBE: OCCUPATION:	Negroid/Idoma Public servant
RELIGION:	Christian
DATE & TIME OF DEATH:	21.03.2019 @ unknown time (certified dead by 10.30am)
DATE & TIME OF AUTOPSY: IDENTIFIED BY:	26.03.2019 @ 12.00noon Detective John Anebe (IPO, State CIID)
AUTOPSY PERFORMED AT: AUTOPSY PERFORMED BY:	Maitama District Hospital, Abuja Dr KN Ezike, MBBS, FMCPath Dr IA Okwudire-Ejeh, MBBS, FMCPath
ASSISTED BY:	Dr Abdulkareem, MBBS
OBSERVERS:	Dr PG Jibrin, MB.ChB, FMCPath Dr HA Ewunonu, MBBS
IN ATTENDANCE:	Detective John Anebe (IPO, State CIID) Frank Jumbo Okoh (deceased's brother) Barr Paul Edeh (family legal rep)

# A. SUMMARY

#### **FUNDAMENTAL DISEASE:**

Blunt force injury to the head

#### **CONCOMMITANT ALTERATIONS:**

• Eyes: Conjunctival injection

Bulging eyeballs with reddened sclerae

• Lips and buccal mucosa: Central cyanosis

Bruises on buccal mucosa and upper gum

• Nail beds: Peripheral cyanosis

• Forehead and face: Multiple bruises

• Left upper limb: Scratch injury

• Lower limbs: Avulsion injury of left big toe

Multiple bruises on right knee and both legs

Body cavities:
 Persistent fluidity of blood

• Lungs: Congestion

Pulmonary oedema

• Liver: Congestion

Fatty change

• Spleen: Congestion

Kidneys: Acute tubular necrosisHead: Scalp haematoma

Cephalohematoma beneath the right

temporalis muscle

### INDEPENDENT ALTERATIONS:

• Lungs: Anthracosis

• Upper back: Skin tag

• Lower limb: Hypertrophic scar behind lower right thigh

#### **CAUSE OF DEATH:**

la. Cerebral oedema

Ib. Blunt force head injury

Dr KN Ezike. MBBS, FMCPath Snr Consultant Anatomic Pathologist Asokoro District Hospital, Abuja. Dr IB Achusi, MBBS, FMCPath Consultant Anatomic Pathologist Nisa Premier Hospital, Jabi, Abuja

# B. PROTOCOL

**HISTORY** (obtained from wife of the deceased)

The deceased was said to have had an altercation with the traffic wardens while attempting to make a 'U' turn to head to Jikwoyi (Karshi) around 7.25am on Wednesday, 20 March, 2019, at 'Redeemed Junction' along Nyanya – Karshi road.

The traffic wardens were two in number and hit him repeatedly all over the body and head with fists and batons, and dragged him along the road to the police station about 200-300 metres away. They arrived at the police station at about 7.40am where more policemen (up to 10) descended on him and continued beating him. He eventually collapsed and sprawled on the floor.

At the insistence of the wife, the Divisional Police Officer (DPO) ordered that he should be taken to the hospital at a few minutes past 9.00am.

At the Nyanya General Hospital, the doctor was said to have inspected the deceased and referred him to the Asokoro District Hospital. At Asokoro District Hospital, he was certified dead by 10.30am and transferred to the morgue. The body was transferred to the Maitama District Hospital morgue for effective preservation by 3.00pm

#### **AUTOPSY FINDINGS**

## **External Appearance**

The fresh body, preserved by refrigeration, is that of a well-developed, adult, negroid male, of athletic build, with appearance consistent with stated age, measuring 172cm from crown to sole. Rigor mortis is present. The scalp hair is dark and cut short. The beard and moustache are shaved clean. The pupils are dilated and fixed with early corneal opacities bilaterally. The eyeballs are bulging, and the sclerae are markedly reddened. There is a bruise on the buccal mucosa of the upper lip measuring 0.7 x 0.5cm. There is marked peripheral and central cyanosis. There is a bruise on the gum above the upper left incisors. The dentition is natural. The chest is not increased in its antero-posterior diameter. There is male pattern hair distribution on the anterior chest, lower abdomen and pubis. The abdomen is not protuberant. The external genitalia are those of a normal male. An old, hypertrophic scar is noted on lateral, posterior, lower right thigh covering an area which measures 12 x 4cm. A skin tag is also noted on the right upper back, near the spinal column, measuring 1.5 x 1.2cm

Multiple skin and soft tissue injuries are observed as follows:

#### **Forehead and Face**

- Bruise on the right forehead, 1cm above the lateral aspect of right eyebrow, measuring 2.5 x
   1cm
- Bruise on the lateral aspect of the skin of the left eye socket, 1.5cm below the left eye, measuring 1.5 x 0.5cm

## **Left Upper Limb**

 Diagonal scratch injury, on the flexor aspect of the left arm, starting medially, 3cm above the popliteal fossa, and extending upwards and laterally for 5.5cm

#### **Lower Limbs**

- Bruise on the central portion of the right knee cap, measuring 2 x 1.5cm
- Bruise on the right leg, 4cm below the knee cap, measuring 2 x 1.5cm
- Two bruises, next to each other (above and below), just beneath the left knee cap, measuring 1.5 x 1.2cm and 1.5 x 1.5cm respectively
- Bruise on the tip of the right big toe, measuring 1.5 x 0.5cm
- Avulsion injury of the tip of the left big toe, measuring 1.5 x 0.9 x 0.5cm
- Bruise on the medial aspect of the left 2<sup>nd</sup> toe, measuring 1 x 0.7cm

## **Body Cavities**

The body is opened by a longitudinal thoraco-abdominal incision extending from beneath the symphysis menti to join a straight incision to the pubic symphysis. The viscera occupy their appropriate anatomic relationships. There is persistent fluidity of blood. There is no organ pallor. There is no pneumothorax. The subcutaneous adipose tissue of the anterior abdominal wall 2cm above the umbilicus is 3cm and is within normal limits.

## **Cardiovascular System**

**Gross:** The heart weighs 360g which is within normal limits. It occupies its usual mediastinal site and its external configuration is unremarkable. The epicardial surfaces are smooth. There is no narrowing or occlusion at any point. The major vessels arise in their appropriate anatomical relationships. The superior and inferior venae cavae open into the right atrium. The cavity of the right atrium and its appendage is free of mural thrombi. The tricuspid valve ring measures11.5cm in its circumference. It opens into the right ventricle. The valve leaflets are thin and transparent. The trabeculae are normal. The right ventricular wall thickness is 0.3cm and is within normal limits. **There is no thrombus in the bifurcation of the pulmonary artery or in either of its major trunks.** The pulmonary valve ring measures 9.0cm in circumference and the cusps appear normal. Four pulmonary veins open into the left atrial cavity. There are no mural thrombi. The mitral valve measures 9.2cm in circumference and the valve leaflets appear normal grossly. The left ventricular free wall thickness is 1.4cm. The papillary muscles appear unremarkable with the thickest measuring 0.9cm. The aortic valve ring measures 6.5cm and its cusps appear normal. The coronary arteries arise normally and are distributed in a right dominant pattern. The arteries are examined by serial cross sections every 0.5cm along the epicardial course. The left

anterior descending and left circumflex arteries contain no atheromatous plaques occupying the vessel lumen. No abnormal communication is present between the cardiac chambers at any point. The descending aorta is of normal calibre with all the major arterial branches arising in their appropriate anatomical relationships. The abdominal aorta contains no atheromatous plaques.

**HISTOLOGY:** None examined.

## **Respiratory System**

**Gross:** The neck structures are carefully removed. There is no evidence of haemorrhage in the musculature of the neck. There are no haemorrhages in the tongue, hypopharynx or pharyngeal mucosa. There are no fractures of the hyoid bone, thyroid cartilage or cricoid cartilage. The larynx is unremarkable but the trachea and major bronchi contain free flowing frothy fluid in their lumens but **no aspirated food contents**; and their respective mucosae are not hyperaemic. The right lung weighs 586g while the left lung weighs 480g. Cut surface of both lungs are similar and reveal dark brown appearance which oozes frothy blood tinged fluid on squeezing. However, cut surfaces of both lungs float on water.

**Histology:** Sections of both lungs are similar showing alveolar spaces filled with air with some containing pale eosinophilic secretions. There is interstitial haemorrhage. The alveolar septa are thickened and contain congested vascular channels however, some foci show septal destruction with coalescent dilatation of alveolar spaces. Pulmonary vessels elsewhere are congested and dilated. Foci of anthracotic deposits are also seen. These features are consistent with pulmonary oedema and congestion.

#### **Gastrointestinal System**

**Gross:** The oropharynx is grossly normal and unobstructed. The oesophagus is of normal calibre and appears hyperaemic. The muscular layer is unremarkable. The gastro-oesophageal junction is well defined. The stomach is empty. The small intestines appear normal and the mucosa is coated with greenish substance. The colon is unremarkable. The appendix is present and grossly normal.

**Histology:** None examined

#### **Liver and Biliary Tract**

**Gross:** The liver weighs 1189g and is within normal limits. The Glisson's capsular surface is smooth and shiny. Cut surfaces show a firm yellowish-brown tissue. There are no intraparenchymal masses. The gall bladder is grossly unremarkable. It empties readily into the  $2^{nd}$  part of the duodenum at the ampulla of Vater. The biliary tract is grossly normal and the duct is patent.

**Histology:** Sections of the liver show preserved lobular architecture with some hepatocyte cords separated by dilated sinusoids. The parenchyma contains foci of lobular inflammation and focal areas of macro and microvesicular steatosis; consistent with mild fatty liver

## **Reticuloendothelial System**

**Gross:** The spleen weighs 107g and is within normal limits. The capsule is grey and smooth. Cut surface is wet and shows dark red tissue. The regional lymph nodes have their usual distribution and appearance.

**Histology:** Sections of the spleen show normal distribution of red and white pulp with intraparenchymal haemorrhage. The intervening sinusoids are dilated; consistent with congestion

## **Genitourinary System**

**Gross:** The right and left kidneys weigh 140g each. The capsules of both kidneys strip with ease. Their cut surfaces are congested with accentuation of corticomedullary differentiation. The renal pelves and major and minor calyces are grossly unremarkable. The renal vessels are patent and of normal calibre. The mucosa and external portions of both ureters are normal. Both open into a grossly unremarkable urinary bladder.

**Histology:** Sections from both kidneys are similar and show congestion of glomerular vascular channels. There is marked cortical tubular epithelial necrosis with epithelial sloughing into the lumen with the tubules persisting as ghost outlines. There is interstitial oedema and congestion of medullary blood vessels. These features are consistent with acute kidney injury.

## **Endocrine System**

**Gross:** The thyroid gland weighs 26g and is within normal limits. Cut surfaces show firm meaty tissue. The right adrenal gland weighs 11g and the left weighs 12g. Their cut sections show no haemorrhages, necrosis or mass lesions. The pancreas weighs 121g which is within normal limits for organ weight; its cut sections show lobulated pale yellowish tissue. The pancreatic ducts are patent.

**Histology:** Sections of the thyroid gland, and both adrenal glands do not present any significant morphological alterations.

### **Central Nervous System**

**Gross:** A haematoma is seen in the right temporal area of the scalp, measuring 7 x 6cm and containing an estimated 70mls of blood. A cephalohematoma is seen beneath the right temporalis muscle, measuring  $5 \times 4$ cm and containing an estimated 60mls of blood. The skull is grossly unremarkable. The dura mater and falx cerebri are intact. There is no fracture of the calvarium or the base of the skull. The dura mater and falx cerebri are intact. The brain

(cerebrum) weighs 1,260g. The gyri are widened and sulci are narrowed. There are no atheromatous plaques or aneurysmal foci seen in the vessels of the circle of Willis. Multiple serial sections of the brain did not reveal any haemorrhages or mass lesions. There is grooving of cerebellar tonsils. The atlanto-occipital articulation is grossly normal.

**Histology:** Sections from the brain show congestion of vascular channels and foci of perivascular halos; features consistent with cerebral oedema.

#### FINAL ANATOMIC DIAGNOSES

- 1. Multiple skin and soft tissue injuries
- 2. Blunt force injury to the head
- 3. Cerebral oedema

Dr KN Ezike. MBBS, FMCPath Snr Consultant Anatomic Pathologist Asokoro District Hospital, Abuja. Dr IB Achusi, MBBS, FMCPath Consultant Anatomic Pathologist Nisa Premier Hospital, Jabi, Abuja

# C. APPENDICES

#### APPENDIX II – ITEMS RETAINED FOR FURTHER STUDY

## A. Tissue blocks for histology:

- 1. Right lung; upper lobe
- 2. Left lung, lower lobe
- 3. Right adrenal gland
- 4. Left adrenal gland
- 5. Right kidney
- 6. Left kidney
- 7. Spleen
- 8. Liver
- 9. Brain