

13**2009-04415
Jackson, Michael**

July 31, 2009

This consultation is provided at the request of the Chief Medical Examiner-Coroner, Dr. Lakshmanan Sathyavagiswaran.

Gross Description:

The weights of the left and right lung are provided in the Autopsy Protocol.

On 6/26/09, the bronchus of the left lung was cannulated with a plastic tube that was slightly smaller in diameter than that of the bronchus. The tube was attached to a perfusion-inflation apparatus containing ~40 gallons of 10% buffered (monobasic and dibasic phosphate) formalin. Perfusion was maintained for ~72 hrs at 30cm water pressure, following which the formalin was replaced with tap water and perfusion continued for ~24 hours.

The formalin-fixed and washed lung was then placed in an electrical rotary slicer and five sagittal slices of whole lung tissue were obtained beginning at the hilum. The inflated left lung measured 25.0 cm in sagittal height, 12.0 cm in coronal width, and 12.0 cm in sagittal depth. The visceral pleural surfaces were generally thin and transparent with the exception that the lateral surface of a large portion of the lower lobe was slightly thickened and had a milky appearance. There was also a patchy anthracotic pigment deposition that involved primarily the superior and lateral portions of the upper and lower lung lobes, with band-like distributions along the rib cage. There were no pleural adhesions or areas of consolidation other than several poorly defined small nodules in the apical portion of the upper lobe in association with a few whitish streaks having an apparent lymphatic distribution. The anterior margin of the upper lobe showed a patchy film-like opacification. The main stem bronchus of the left lung measured 2.5 cm in length and was grossly unremarkable. A few hilar lymph nodes were noted that were grossly unremarkable except for slight anthracotic pigmentation.

Gross examination of the sliced section at the base of the Left Lower Lobe showed three relatively firm and nodular masses of tissue immediately below the pleura surface. On cut section, the largest of the nodular masses was irregular and measured 0.6 cm x 0.8 cm x 0.5 cm. Two other masses, each measuring 0.5 cm x 0.5cm and 0.7 cm, were moderately firm in consistency and, in large part, associated with congestion and hemorrhage. An area of brownish discoloration of the apical pleura overlying the Left Upper Lobe measured 0.5cm x 0.6cm, with superficial involvement (~1.0mm) of the subpleural tissue. Additional small areas of subpleural brownish discolorations were nearby. At the base of the Left Upper Lobe, a reddish-brown and hemorrhagic mass was found that measured 0.6 cm x 0.6cm x 0.4 cm. Five sections of the formalin-perfused lung tissue were excised for microscopic study.

Sections taken for paraffin embedding and processing:

Cassette B - apex, Left Lower Lobe; Cassette D - base, Left Lower Lobe
Cassette A - base, Left Upper Lobe; Cassette E - base, Left Lower Lobe
Cassette C - Main stem bronchus, transverse section

Histopathologic Findings

On examination of the base of the Left Lower Lobe, four roughly rectangular scar areas were found that measured approximately 3.5mm x 1.4mm, 7.6mm x 4.2mm, 4.8mm x 0.9mm, and 1.4mm x 0.6mm. All shared in common acellular fibrocollagenous tissue, derangement of bronchioloalveolar structures, hemorrhage, proteinaceous-fibrinous deposits, and aggregates of heavily pigmented macrophages. In some scar areas there was a fibrous thickening of bronchioloalveolar walls with round cell infiltrates and aggregates of pigmented histiocytes. There is slight to moderate thickening of the pleura that overlies fibro-inflammatory lesions. Several foci of round cells aggregates are noted, including periarterolar and pericapillary sites.

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Histopathologic Findings (Cont.)

There is widespread bronchioloalveolar histiocytic infiltration and patchy histiocytic desquamation. Centriacinar derangement is noted with and without chronic inflammation. Two small arteries are observed that contain organizing/recanalizing thromboemboli. One of the vessels with a thromboembolus (base of upper lobe) is associated with a localized, subpleural area of hemorrhage. Eosinophils are often noted within capillaries and other vascular channels, and are also seen occasionally within interstitial tissues of the lung. In two instances, an air space was observed that contained cells consistent with respiratory lining cells that have undergone squamous metaplasia. Histiocytes often contained birefringent particulates in association with anthracotic pigment. Birefringent particles were absent elsewhere in the lung. Slight chronic inflammation was seen in the bronchial section. The foregoing findings were in part observed in the "K" section of the uninflated lung (H&E stained section). PAS and iron stains of Slides D and K were reviewed.

DIAGNOSIS:

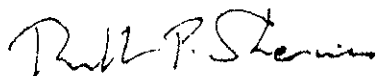
Marked diffuse congestion and patchy hemorrhage of right and left lungs.
Marked respiratory bronchiolitis, histiocytic desquamation, and multifocal chronic interstitial pneumonitis.
Multifocal fibrocollagenous scars with and without congestion and hemorrhage.
Organizing and recanalizing thromboemboli of two small arteries.
Intravascular eosinophilia with occasional interstitial eosinophilic infiltrate.
Suggestive focal desquamation of respiratory lining cells with squamous metaplasia.

OPINION

The above findings reflect a depletion of structural and functional reserves of the lung. Reserve depletion is the result of widespread respiratory bronchiolitis and chronic lung inflammation in association with fibrocollagenous scars and organizing/recanalizing thromboemboli of small arteries.

It should be noted that the above lung injury with reserve loss is not considered to be a direct or contributing cause of death. However, such an individual would be especially susceptible to adverse health effects.

Respectfully submitted,



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Deputized Consultant in Pulmonary Pathology
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Keck School of Medicine
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RPS/vr

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ODONTOLOGY CONSULT

CC #2009-04415

JACKSON, Michael Joseph

REQUEST:

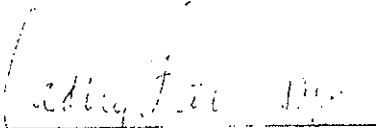
The decedent is a 50 year old black man who died unexpectedly. Please examine for dental contribution to cause of death.

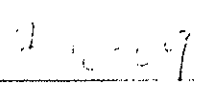
FILMS:

Post Mortem AP and lateral skull

FINDINGS:

Review of the two films reveal history of routine restorative dentistry. There were incomplete dental records from two Las Vegas dentists who performed restorative and surgical treatment for this decedent. There is root canal therapy completed on tooth #13. There are endosseal dental implants in the positions of teeth #18 and #19. There are also metallic/ceramic restorations present in the lower right quadrant. There are multiple all ceramic restorations present in the maxillary teeth. There is no gross pathology seen on these two radiographic views, even though these are not the standard views for a dental exam.


Cathy Law, D.D.S.
DENTAL CONSULTANT


Date

cl:ECL
hw 7/10/09

13**NEUROPATHOLOGY**

2009-04415

JACKSON, MICHAEL J.

July 8, 2009

AGE: 50 years

DATE OF DEATH: June 25, 2009

REFERRING DME: Christopher Rogers, M.D.

CIRCUMSTANCES:

The following information is taken from the Investigator Report, preliminary autopsy notes, and records from UCLA Ronald Reagan Medical Center currently in the file.

This 50-year-old man was reportedly found unresponsive in his residence at approximately 1200 hours on 6/25/09, and arriving paramedics found him to be in cardiopulmonary arrest. He was transported to UCLA Ronald Reagan Medical Center, but did not respond to resuscitative efforts and was pronounced at 1426 hours on 6/25/09. Available records reveal no remarkable prior neurological symptoms or findings, and no history of trauma of seizures preceding the cardiopulmonary arrest.

At the time of postmortem examination on 6/26/09 the findings included evidence of therapy, and no scalp, skull or intracranial abnormalities were described. Brain weight at removal was 1380 grams.

GROSS DESCRIPTION:

Specimens available for examination are cranial dura mater and brain. The specimens are identified as to source by the identification tag indicating specimen number and decedent name on the specimen container, and separately on a plastic card within the specimen container, within the green surgical cap surrounding the brain.

The cranial dura mater submitted includes dorsal convexities with falx cerebri, posterior fossa with tentorium cerebelli, and the bulk of the middle and anterior fossae bilaterally. External and internal surfaces of the dura mater are smooth and shiny, without evidence of discoloration, hemorrhage, subdural membranes, mass lesions, or other significant

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finding. No calcific plaques are palpated within the dura. Dural venous sinuses are normal in pattern.

The cerebral leptomeninges show a very mild degree of increased opacity over the dorsal convexities, well within normal limits for age group, and are otherwise thin and delicate. There is a mild degree of leptomeningeal vascular congestion. The hemispheres are approximately symmetrical, with a midline and closely apposed interhemispheric fissure. There is mild diffuse cerebral swelling, with mild flattening of gyral crowns and narrowing of sulci, but no evidence of herniation at the uncus, cerebellar tonsillar/biventer lobule region, superior cerebellar vermis or cingulate gyrus. The convolutional pattern is unremarkable. No recent or remote cerebral or cerebellar cortical contusions are identified. No focal areas of softening, increased firmness, or focal discoloration are present.

Rectus-orbital and basitemporal areas are intact. Cranial nerves, I through XII, are present and unremarkable except for avulsion of the olfactory bulbs bilaterally. Major basal arteries are as follows: the left vertebral artery is slightly larger than the right vertebral artery, as they fuse to join the basilar artery. The anterior communicating artery is duplicated. Major basal arteries are otherwise unremarkable, without major anomalies, aneurysms, or significant occlusive vascular disease. Belly of the pons and medulla have a normal configuration, discounting some minor brain removal artifact consisting of a superficial incision in the anterolateral left medulla which crosses the inferior olivary nucleus. Cerebellar hemispheres are approximately symmetrical, with mild swelling of the folia. Basal cisterns are minimally narrowed, consistent with the mild degree of brain swelling previously described.

The brain is sectioned in a coronal plane, and the brainstem and cerebellum in a transverse plane. The cortical ribbon is normal in thickness and color, and gray/white demarcation is distinct. Underlying white matter is homogeneous and clean, discounting a somewhat softer consistency of parenchyma in deep hemisphere areas (which is not infrequently encountered in formalin-fixed tissue). Corpus callosum is normal in thickness, color and symmetry. Lateral ventricles are normal in size, with only a trace asymmetry noted, consisting of a

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trace rounding of the superior angle of the left lateral ventricle compared to the right, which is sharp. Septum pellucidum is non-fenestrated, and there is a small cavum septi pellucidi. Third ventricle is midline and does not exceed 0.3 to 0.4 cm in maximum transverse diameter. Cerebral aqueduct and fourth ventricle are normal in size and configuration, and choroid plexus is unremarkable bilaterally. Basal ganglia are normal in size, symmetry, contour and color. Substantia nigra is normally pigmented. Hippocampal formation, amygdaloid complex of nuclei, mamillary bodies and pineal body are all grossly unremarkable. Multiple transverse sections of the brainstem and cerebellum reveal no abnormality.

Selected areas are retained in storage. Representative sections are submitted for microscopic examination.

GROSS IMPRESSIONS:

- A. Mild cerebral vascular congestion.
- B. Mild diffuse brain swelling without herniation syndrome.
- C. Otherwise grossly unremarkable adult brain and coverings.

John M. Andrews, M.D.
JOHN M. ANDREWS, M.D.
DEPUTY MEDICAL EXAMINER
NEUROPATHOLOGY CONSULTANT

7/3/09
DATE

MAILED
7/3/09