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OA14-37

NAME: Pravel Varughese

AUTHORIZED BY:
Dr. Tom Kupferer
Jackson County (IL) Coroner

DATE: 2-19-14

PERFORMED AT:
Memorial Hospital of Carbondale
Carbondale, IL

TIME: 11:15 a.m.

FINAL DIAGNOSIS:

1. Evidence of environmental hypothermia (history of being found dead in a wooded area with removed clothing).
2. Negative blood and urine toxicology (including synthetic cannabinoids and bath salts).
3. Mild postmortem changes (including presence of postmortem urine alcohol).
4. Absence of significant trauma.
5. Superficial abrasions (2), left hand.
6. Multiple abrasions, upper extremities and anterior torso, consistent with being found in a wooded area.
7. Tattoo.

OPINION: Death in this 19 year old man is attributed to environmental hypothermia (history of being found dead in a wooded area with removed clothing). Toxicology findings are negative, including studies for synthetic cannabinoids and bath salts. Only minor superficial abrasions are present.


James M. Jacobi, M.D.
Forensic Pathologist
(American Board of Pathology) 3/25/14

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GENERAL DESCRIPTION:

The body is that of a well developed, Middle Eastern male who appears the stated age of 19 years. The height is measured at 69 inches, and the weight is estimated at 160 lbs. The scalp hair is short and black; a short black beard is present. The facial features will be described in detail later. The ears, eyes, and nares are otherwise unremarkable. The teeth are in good repair. There are no neck masses. The chest is symmetric, and features a tattoo of the words "Fear God" in the left upper portion. The flat abdomen is free of surgical scars. The penis is uncircumcised, and both testes are palpable in the scrotum. The upper and lower extremities are normally developed and symmetric. There are no abnormalities of the back.

The body is received in a grey body bag containing vegetation debris. The clothing consists of wet jeans, boxer style undershorts, and a left sock. No additional clothing is present. Personal effects consist of a set of keys, a wallet, and sunglasses. The personal effects are released to Carbondale Police Department Detective Rebecca Moody.

EVIDENCE OF MEDICAL TREATMENT:

None.

EVIDENCE OF INJURY:

A small amount of earth soil is present on the face and upper extremities. Focal dark postmortem discoloration is evident in the face, including a 3 x 1 cm rectangular shaped area with a horizontal orientation, located on the right supraorbital ridge. A 1.5 x 1 cm round area of similar discoloration is present on the right lateral aspect of the forehead, 2 cm above the previously described supraorbital lesion. Palpation of the skull, facial bones, and jaws fails to reveal fractures. There are no neck lesions.

Scattered superficial abrasions are present on both upper extremities and the anterior torso, consistent with a history of being found in the woods. Earth soil on the face and upper extremities is also present. The lower extremities are free of lesions.

Careful inspection of the hands reveals the previously described dried earth soil. The dorsal aspect of the left hand features two superficial abrasions, 1 x 0.5 cm and 1 x 0.2 cm. No ecchymosis or evidence of bleeding is present. There are no fractures of the hand. The right hand displays similar earth soil as well as abrasions consistent with the wooded area. There are no fractures of the right hand.

INTERIOR OF THE BODY:

The body is opened with the usual Y shaped incision through well developed abdominal musculature. The thickness of the abdominal panniculus is 1 cm. The heart and lungs appear of normal size. There are no pleural, pericardial, or peritoneal effusions or hemorrhages. Inspection of the peritoneal cavity reveals the presence of the vermiform appendix, and mild distension of the urinary bladder. There are no abnormalities of the small bowel or colon.

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CARDIOVASCULAR SYSTEM:

The weight of the heart is 340 grams. The epicardial surface is smooth, glistening, and unremarkable. The left main, left anterior descending, circumflex, and right coronary arteries are free of atherosclerotic plaque. No thrombi or lesions are noted. The coronary arteries are of normal size, and display the expected distribution.

The right and left ventricles are of normal thickness. There are no abnormalities of the valves or endocardium. Serial sections through the myocardium reveal the usual red-brown color and consistency. No hemorrhage, fibrosis, or abnormalities are noted. The aorta is free of atherosclerotic plaque.

RESPIRATORY SYSTEM:

The larynx and trachea are of normal caliber. Postmortem congestion is evident in the mucosa. There are no fractures, hemorrhages, or foreign material. No hemorrhages are evident in the laryngeal strap musculature.

The weight of the lungs is 380 grams and 540 grams, left and right, respectively. The pleural surfaces are smooth and glistening. The major pulmonary arteries are free of thrombi. Both bronchial trees contain small amounts of frothy fluid. On section, mild congestion and edema is noted. The lungs appear adequately aerated. No consolidation or focal lesions are evident.

DIGESTIVE SYSTEM:

The esophagus is of normal caliber. The stomach is empty. No ingested medications, hemorrhages, or distinctive odors are noted. There are no gastric or duodenal ulcers. The jejunum, ileum, cecum, vermiform appendix and colon are unremarkable.

The weight of the liver is 1540 grams. The capsular surface is smooth and glistening. On section, the usual brown parenchyma is evident. There are no focal lesions. The gallbladder is free of stones. There are no abnormalities of the pancreas.

GENITOURINARY SYSTEM:

The combined weight of the kidneys is 300 grams. The capsules strip with ease to reveal a smooth subcapsular surface. On section, the cortex is of normal thickness, and can easily be differentiated from the medulla. There are no abnormalities of the pelvis. The urinary bladder contains approximately 100 cc of clear yellow urine; a sample of urine is aspirated for toxicology purposes. The prostate is unremarkable by palpation.

The penis is uncircumcised. Both testes are palpable in the scrotum.

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LYMPHATIC SYSTEM:

The weight of the spleen is estimated at 120 grams. The capsular surface is intact. On section, the usual red-black parenchyma is evident. There are no focal lesions. No abnormalities are noted in the major lymphatic chains.

ENDOCRINE SYSTEM:

The thyroid gland is of normal size. On section, no cysts or nodules are noted. Mild congestion is evident. The adrenal glands are of normal size, and free of hemorrhage. The pituitary gland appears of normal size.

HEAD:

Mild postmortem discoloration is noted in the forehead and upper portion of the face, including the orbital areas. A small amount of dried earth soil is additionally present. There are no scalp lesions. Reflection of the scalp fails to reveal hemorrhages. The calvarium is intact. There are no epidural, subdural, or subarachnoid hemorrhages. The weight of the brain is 1430 grams.

The leptomeninges are glistening. Mild postmortem changes are noted. On serial section, the cortex, deep white matter, ventricles, basal ganglia, and thalamus are unremarkable. Serial sections through the cerebellum and brain stem fail to reveal lesions. Mild postmortem softening is generally present throughout the brain.

Examination of the skull following removal of the brain and dura fails to reveal skull fractures.

MUSCULOSKELETAL SYSTEM:

The bony thorax is intact. The upper and lower extremities are normally developed and symmetric.

SKIN:

The dried earth soil and abrasions related to being found in a wooded area have previously been described. The two superficial abrasions on the dorsal aspect of the left hand have also been noted.

The tattoo on the left upper chest area has also been described.

TOXICOLOGY:

A sample of caval blood and aspirated bladder urine are submitted for an expanded drug and alcohol screen, as sufficient blood from other sources is not available. Testing for synthetic cannabinoids and bath salts is also requested.

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The attached toxicology report indicates the following:

BLOOD:

Bath Salts

Negative for 15 tested drugs (see toxicology report page 1)

Synthetic Cannabinoids

Negative for 10 tested drugs (see toxicology report page 1)

Negative for alcohol and drugs of abuse

Caffeine

positive

URINE:

Ethanol (alcohol)

0.049% Consistent with postmortem bacterial production

Negative for drugs of abuse

The low urine alcohol level of 0.049% is consistent with postmortem bacterial production, and is insignificant. The blood is negative for bath salts, synthetic cannabinoids, and drugs of abuse. The toxicology panel is non-contributory to the cause of death.

MISCELLANEOUS:

Autopsy photography was provided by Carbondale Police Detective Rebecca Moody. The autopsy was attended by Jackson County Deputy Coroner Harold Anderson.

SCENE INVESTIGATION:

According to the Coroner and Deputy Coroner, the subject was discovered after a search in a wooded area, 2-18-14. He was discovered following a search, as he was last seen 2-12-14. Multiple removed articles of clothing were present nearby.

He was believed to have been involved in an altercation shortly before disappearing into a wooded area. He was thought to be consuming alcohol at the time.

GPD:

1. Evidence of environmental hypothermia (history of being found dead in a wooded area with removed clothing).
2. Blood and urine toxicology pending (including synthetic cannabinoids and bath salts).
3. Absence of significant trauma.
4. Superficial abrasions (2), left hand.
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MICROSCOPIC EXAMINATION:**HEART** (4 sections):

The myocardial fibers are intact, and display the usual cross striations. No fibrosis, necrosis, hemorrhage, or inflammation is present. Mild generalized acute congestion is noted. The myocardial fibers appear of normal size, and display the expected architecture.

LUNGS (4 sections):

The alveoli are normally expanded, and display moderate acute congestion. No granulomas or acute inflammatory cell infiltrates are present. The pulmonary arteries are of normal size, and free of thrombi. The expected autolysis is evident in the bronchioles.

LIVER:

The hepatocytes display mild autolysis. Moderate acute sinusoidal congestion is present. The portal tracts and central veins are of normal size. There is no evidence of inflammation or hepatocytic necrosis.

KIDNEY:

The glomeruli and tubules display the expected features. The arteries appear of normal size.

THYROID:

The colloid filled follicles display mild autolysis. No fibrosis or inflammation is present.

BRAIN:

The cortical neurons are adequately preserved. Generalized acute congestion is present. There are no hemorrhages or acute inflammatory cell infiltrates.

INCIDENT REPORT NARRATIVE

☐ Current Report
☒ Initial Report

AGENCY: Carbondale Illinois Police	ORI #: IL0390100	Date/Time On Scene: 02/13/2014 20:20:21	CASE #: C20140213057
DEATH INVESTIGATION SUPPLEMEN			
On 3/28/2014, Lt. M. Goddard asked me, Det. B. Weisenberger, to contact Dr. James Jacobi, the pathologist who conducted Pravin Varughese's autopsy, to clarify certain aspects of his report and the toxicology results. At approximately 1310 hours on 3/31/2014, I contacted Dr. James Jacobi via his pager (812-278-3201). Dr. Jacobi called me at CPD several minutes later, and he provided the following clarifying information during questioning: - As detailed in Dr. Jacobi's report, the ethanol present in Varughese's urine was most likely ethanol produced by the bacteria that are naturally part of the decomposition process. There is no way to differentiate between that bacteria-produced ethanol and the ethanol present in any alcoholic beverages Varughese may have consumed. The fact that Varughese's blood tested negative for the presence of ethanol made Dr. Jacobi believe the majority, if not all, of the ethanol in Varughese's urine was derived from bacteria; - If Varughese consumed any alcoholic beverages, he was alive long enough to metabolize all of the ethanol in his blood. The standard metabolism rate for ethanol in the living body is 0.025 percent (weight/volume) per hour. That metabolism ends or is, at least, drastically slowed at the time of death. Extended loss of consciousness is typical prior to a hypothermic death, and the metabolism would continue during that time, if Varughese lost consciousness; - There was no way to approximate Varughese's time of death due to the many variables involved in a hypothermic death; - Dr. Jacobi did not extract a fluid sample from Varughese's vitreous humor (commonly known as vitreal fluid). He only extracts such a sample when there is not sufficient blood and urine for analysis. Dr. Jacobi also noted that whoever dictated his report mistakenly spelled Varughese's first name as "Pravel." In reviewing the report, I saw that Crime Scene Specialist Rebecca Mooney was mistakenly identified as a "Rebecca Moody" and Jackson County Assistant Coroner Howard Anderson was mistakenly identified as "Harold Anderson." Nothing further. EVIDENCE: None.			
Contreras, Raul	C3113	Ronketto, Amber	2236
REPORTING OFFICER	ID	APPROVING SUPERVISOR	ID

INCIDENT REPORT NARRATIVE

☐ Current Report
☒ Initial Report

AGENCY:
Carbondale Illinois Police

ORI #:
IL0390100

Date/Time On Scene:
02/13/2014 20:20:21

CASE #:
C20140213057

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DEATH INVESTIGATION

On 4/4/2014, the Jackson County Coroner's office faxed to CPD a supplemental report prepared by Dr. James Jacobi. The supplemental report contained clarification from Dr. Jacobi on several aspects of Pravin Varughese's toxicology and overall death investigation. The information is consistent with what Dr. Jacobi told me, Det. B. Weisenberger, over the phone on 3/31/2014.

Dr. Jacobi's signed supplemental report is attached.

EVIDENCE: None.

Contreras, Raul

C3113

REPORTING OFFICER

ID

Ronketto, Amber

2236

APPROVING SUPERVISOR

ID

20140213057

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OFFICE OF CORONER
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Murphysboro, IL 62966
Phone-618-687-5101
Fax-618-687-9511DATE 4-4-14TO McLach DesfectivesFROM Dr. Kupferer - Jackson County CoronerNumber of Pages Sent Including This Page 2

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Apr 02 14 08:42p

James Jacobi MD

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C20140213057

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NAME: Pravin Varughese

AUTHORIZED BY:
Dr. Tom Kupferer
Jackson County (IL) Coroner

DATE: 2/19/14

PERFORMED AT:
Memorial Hospital of Carbondale,
Carbondale, IL

SUPPLEMENTAL REPORT (4/2/14):

Following a telephone conversation with the Coroner, the following comments are added:

1. The blood toxicology is negative for alcohol, drugs of abuse, bath salts, and synthetic cannabinoids. Alcohol is metabolized at the usual rate of 0.02% per hour. Based on the negative blood alcohol alone, the possibilities are that alcohol was not consumed, or that alcohol was metabolized completely between disappearance and death.
2. The urine alcohol level of 0.049% was initially attributed to postmortem bacterial production due to the prolonged postmortem interval. The possibility of recent alcohol consumption is also a possibility.
3. The urine is negative for Cocaine, Marijuana, and Amphetamine metabolites.
4. The survival interval from hypothermia is highly variable, and cannot be easily predicted. Alcohol and drugs would continue to be metabolized until death.
5. Vitreous was not submitted due to adequate blood and urine specimens.

Based on the toxicology and autopsy findings, it cannot be determined conclusively if alcohol was consumed prior to the disappearance, or if so, the alcohol level at this time. The interval between disappearance and death by Hypothermia also cannot be determined.


James M. Jacobi M. D.
4/2/14
Forensic Pathologist
(American Board of Pathology)