



OFFICE OF THE MEDICAL EXAMINER
701 W. Jefferson St.
Phoenix, AZ 85007

MEDICAL EXAMINER REPORT

DECEDENT: Travis Turbyfill

CASE: 13-04443

DATE OF EXAMINATION: 07/02/2013

TIME: 1345 Hours

PATHOLOGIC DIAGNOSES

- I. Fire Related Injuries
 - a. Extensive Thermal Injuries
 - b. Smoke and Soot Inhalation.
 - c. Carboxyhemoglobin, <10% Saturation
 - d. Benzene, Toluene, Xylene in Brain and Lung.

CAUSE OF DEATH: Fire Related Injuries
MANNER: Accident

10/8/13
Date Signed

Lesley E. Wallis, DO
LESLEY E. WALLIS, DO
MEDICAL EXAMINER

TRAVIS TURBYFILL

13-04443

REPORTED CIRCUMSTANCES OF DEATH

On July 1, 2013, Yavapai County officials requested assistance from the Maricopa County Office of the Medical Examiner with the medicolegal death investigations of 19 firefighters who died in the Yarnell Hill wildfire on June 30, 2013. Under the Maricopa County Manager's authority and direction, the Maricopa County Office of the Medical Examiner examined the firefighters' remains for the purpose of forensic identification and postmortem evaluation. The Maricopa County Office of the Medical Examiner also agreed to provide consultative services to investigating authorities and the Yavapai County Medical Examiner. The Yavapai County Medical Examiner agreed it will certify the firefighters' death certificates. The following Maricopa County Office of the Medical Examiner case numbers were designated for this incident: 13-04425, 13-04426, 13-04427, 13-04428, 13-04429, 13-04430, 13-04431, 13-04432, 13-04433, 13-04434, 13-04435, 13-04436, 13-04437, 13-04438, 13-04439, 13-04440, 13-04441, 13-04442, and 13-04443.

EXTERNAL EXAMINATION

The body is received in an orange zippered body bag sealed with two seal numbers of 025517 and 0002833.

CLOTHING AND PERSONAL EFFECTS

The majority of the clothing has been completely charred. However, encircling the waist of the decedent is the waistband of a pair of tan colored pants, and a portion of leather belt. Adherent to the underside of the belt, anterior aspect, is a portion of yellow shirt and blue T-shirt type material. There is also adherent silver material consistent with possible shelter tenting. Encircling the left foot is a portion of boot and underlying sock. A separately submitted portion of right boot is found lying between the feet within the body bag. Encircling the left ring finger is a black and white metal ring.

EVIDENCE OF INJURY

There is extensive charring to all soft tissues of the body with skin split and exposure of underlying musculature to the buttocks, posterior thigh, and extending down the bilateral calves. The right calcaneus exhibits charring of the bone.

There is pugilistic contracture of the upper extremities with exposure of the joints to the bilateral fingers.

Examination of the oropharynx reveals marked protrusion of the tongue with soot deposition within the posterior pharynx extending along the trachea and down into the bilateral bronchi.

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GENERAL EXTERNAL EXAMINATION

The body is that of a 76 inch, 199 pound, adult male. The scalp has marked thermal injury with complete absence of the hair and charring of the underlying soft tissues. The eyes also have indeterminate coloration with marked clouding to the cornea as well as charring to the eyelids with complete absence of eyelashes and eyebrows. The nasal bridge is palpably intact and there is still presence of the nasal septum which also appears intact. There is adherent dried red to purple gelatinous material exuding from the bilateral nares consistent with pulmonary edema. The bilateral external auditory canals exude a dark red purple fluid and the bilateral ears are markedly shrunken due to thermal injury. The oral mucosa has the above noted soot deposition with marked protrusion of the tongue. There are no other acute oral lesions present. The maxilla and the mandible have native dentition in good repair. The upper lip and mandible are also absent of hair. The neck is grossly symmetric with extensive charring and no grossly identifiable tattoos or scars present. The chest is symmetric and has extensive thermal injury characterized by dark black discoloration of the skin with no gross defects, tattoos or scars. The abdomen is protuberant, tense, and has extensive thermal charring with no grossly identifiable scars or other defects present. The genitalia are those of a circumcised male, however, due to extensive thermal injury descended testes within the scrotum are not identified. The back is symmetric and also has extensive charring of the skin with focal areas of skin slippage. The upper lateral right arm has a tattoo of the Arizona flag with the inscription of Arizona. There is also a tattoo of multiple trees and a surrounding wildfire to the lateral right arm. The upper lateral left arm has a tattoo of multiple stars with a bird in the shape of possibly a totem pole. There is a skull wearing a hat with the number 1, a lightening bolt, and the number 7. The skull is flanked by the inscription of "suicide" and possibly "Charley" and an underlying flower. The medial aspect of the right ankle has a Special Forces type tattoo consisting of a possible wreath and lasso.

INTERNAL EXAMINATION

The body is opened by a standard Y-shaped thoracoabdominal incision and exhibits marked pink discoloration of the underlying musculature within the chest and abdomen. All viscera occupy their appropriate anatomic relationships. Subcutaneous adipose tissue ranges up to 3.0 cm in thickness over the abdominal wall. Serous surfaces are smooth and glistening throughout. The bilateral pleural cavities contain an estimated 50 cc of dark red serosanguineous fluid.

CARDIOVASCULAR SYSTEM

The 375-gram heart occupies its usual mediastinal site. The external configuration is not remarkable. The epicardial surfaces are smooth and glistening. All major vessels arise in their appropriate anatomic relationships. The coronary arteries arise normally and are distributed in a left dominant distribution, with no significant atherosclerotic narrowing of the underlying myocardial vessels. The myocardium is soft, red-brown without gross areas of hemorrhage or scarring. The endocardium has a crimson red

discoloration secondary to thermal changes as well as decomposition. No abnormal communications exist between the cardiac chambers. The cardiac valves have thin, pliable leaflets. The valve circumferences are appropriate to the caliber of the cardiac chambers. The valve cusps and surfaces are free of fusion or vegetations.

The aorta is of normal caliber with all major arterial branches arising in their appropriate anatomic relationship. Elasticity is normal. The intimal surfaces are crimson red, smooth without atherosclerotic changes, aneurysm formation or dissection. No systemic venous abnormalities or thrombi are present.

RESPIRATORY SYSTEM

The lungs weigh 950 grams left and 875 grams right. The pleural cavities contain an estimated 50 cc of dark red serosanguineous fluid. The pleural surfaces are smooth and glistening. The bilateral lung parenchyma is markedly gelatinous, dark red-purple, and exudes a moderate amount of blood and frothy fluid. The bronchi are patent and of normal caliber, have a hyperemic mucosa and contain a moderate amount of soot and dark red serosanguineous fluid. The pulmonary vessels are patent, have a crimson red intimal surface and are of normal caliber. The upper airway is patent and has a markedly hyperemic mucosa which is covered with a moderate amount of black soot and serosanguineous fluid.

DIGESTIVE/HEPATOBIILIARY SYSTEM

The oropharynx is grossly normal and unobstructed. The esophagus is of normal caliber, with a smooth, gray-white mucosal lining. The gastroesophageal junction is well defined. The stomach has intact mucosal surfaces and the lumen contains 10 cc of tan liquid intermixed with green leafy material. No areas of ulceration, erosion, hemorrhage, or scarring are present. The small and large intestines are not remarkable. The appendix is present and noninflamed. Large bowel contains brown stool. The lobular tan pancreas is firm, without areas of fat necrosis, gross hemorrhage, or space-occupying lesions. The pancreatic ducts are patent and of normal caliber.

The 1725-gram liver has a smooth intact capsule, covering red-brown parenchyma. No localizing masses, lesions, or areas of hemorrhage are evident on external or cut surfaces. The intrahepatic and extrahepatic ducts are patent and of normal caliber. The gallbladder contains viscid bile. The gallbladder mucosa is grossly normal.

GENITOURINARY SYSTEM

The kidneys weigh 125 grams left and 125 grams right. They are grossly similar. The capsules strip with ease from the smooth, red-brown cortical surfaces. The cortices are sharply delineated from the medullary pyramids. The calyces, pelves and ureters are unremarkable. The renal vessels are patent and of normal caliber.

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The urinary bladder contains approximately 30 cc of a light pink to yellow urine. The mucosal surfaces are flat and pink-tan. The trigone is patent. The prostate and seminal vesicles are not remarkable.

HEMATOPOIETIC SYSTEM

The 150-gram spleen has a gray wrinkled capsule covering moderately softened dark purple parenchyma. Regional lymph nodes have their usual distribution and appearance.

ENDOCRINE SYSTEM

The thyroid, parathyroid and adrenal glands are grossly not remarkable.

NECK

The cervical spine is structurally intact. The hyoid bone and thyroid cartilage are intact. There are no hemorrhages in the strap muscles or soft tissues of the neck.

MUSCULOSKELETAL SYSTEM

The bony framework, supporting musculature and soft tissues are grossly normal other than the abnormalities related to thermal injuries, as previously described.

NERVOUS SYSTEM

The reflected scalp is free of trauma. The temporalis muscles are grossly unremarkable. The calvarium and dura mater are intact. There is no epidural, subdural or subarachnoid hemorrhage. The 1525-gram brain has symmetric edematous cerebral and cerebellar hemispheres covered by congested, clear, thin leptomeninges. The cerebral cortex is pink-gray, uniform, and free of contusion foci or hemorrhage. The cerebral white matter is rosy pink and uniform throughout. The caudate nuclei, thalami, and basal ganglia are also tan, uniform, and symmetric. The cerebellum, pons, midbrain, and medulla oblongata are free of internal or external abnormalities. The substantia nigra is normally pigmented. The cranial nerves and mammillary bodies are paired and unremarkable. The vasculature at the base of the brain is free of atherosclerosis, aneurysm, or thrombi. The cervical spinal cord is firm, symmetric, and unremarkable. The atlanto-occipital articulation is intact.

EVIDENCE

The clothing as noted above are collected, inventoried and held as evidence.

TOXICOLOGY SPECIMENS

Samples of vitreous humor, iliac blood, bile, spleen, liver, psoas muscle, left kidney, left lung, urine, gastric contents, and brain are collected and submitted for toxicological analysis.

FINAL SUMMARY

Based on the investigative history as available to me, and my above noted autopsy findings, it is my opinion that Travis Turbyfill, a 27-year-old male, died as a result of Fire Related Injuries.

The manner of death is Accident.

LEW/ogm
D:07/02/2013
T:07/03/2013
Lew 10/8/13

The Maricopa County Medical Examiner's Office is required by statute (A.R.S. § 11-594(A)(2) and (4)) to certify the cause and manner of death following completion of the death investigation of each case over which it assumes jurisdiction, and to promptly execute a death certificate, on a form provided by the state registrar of vital statistics, indicating the cause and manner of death. The form provided by the state registrar of vital statistics includes five manners of death: homicide, suicide, accident, natural, and undetermined. The determination of manner of death is a forensic determination by the pathologist predicated upon the totality of all then-known forensic evidence and other circumstances surrounding the cause of death; it is not a legal determination of criminal or civil responsibility of any person(s) for the death.

MARICOPA COUNTY OFFICE OF THE MEDICAL EXAMINER

REPORT OF TOXICOLOGICAL EXAMINATION

Case Number: 13-04443
Decedent: TRAVIS JOHN TURBYFILL
Date Submitted: 07/02/2013
Report Date: 07/26/2013

Specimens Collected: BLOT/FILTER PAPER, SWAB FROM NASAL CAVITY, VITREOUS, BILE, ILIAC BLOOD, SPLEEN, LIVER, PSOAS MUSCLE, LEFT KIDNEY, LEFT LUNG, URINE, SUBCUTANEOUS ADIPOSE TISSUE, GASTRIC, BRAIN

Medical Examiner: LESLEY E. WALLIS, DO

RESULTS*:

Vitreous: None detected for ethanol, methanol, isopropanol and acetone


Iliac Blood: None detected for ethanol, methanol, isopropanol, acetone, amphetamine, methamphetamine, phencyclidine, cocaine, benzoylecgonine, methadone, morphine, codeine, benzodiazepines, barbiturates, antihistamines, phenothiazines, tricyclic antidepressants, fentanyl, oxycodone, acid neutral drugs, and carboxyhemoglobin saturation

Brain: Positive by GC/MS for
Benzene
Toluene

Lung: Positive by GC/MS for
Benzene
Toluene
Xylene

Urine: None detected for amphetamine, methamphetamine, phencyclidine, cocaine, methadone, codeine, antihistamines, phenothiazines, and tricyclic antidepressants

*If results are not listed for any specimen(s), that/those specimen(s) is/are deemed to be on "HOLD"


Norman A. Wade
Laboratory Director

L. Wallis, DO