



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

MEDICAL EXAMINER REPORT

DECEDENT: Andrew Ashcraft

CASE: 13-04434

DATE OF EXAMINATION: 07/02/2013


TIME: 1027 Hours

PATHOLOGICAL DIAGNOSES OR SIGNIFICANT FINDINGS

- I. Thermal injuries and smoke inhalation.
 - A. Third and fourth degree burns with more than 95 percent of entire body surface involved.
 - B. Soot deposit in upper airways.
 - C. Carbon monoxide saturation: 13%.

CAUSE OF DEATH: Fire related injuries
MANNER: Accident

08.05.2013
Date Signed


VLADIMIR SHVARTS, MD
MEDICAL EXAMINER

ANDREW ASHCRAFT

13-04434

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 a zippered body pouch secured by evidence seal #025508.

CLOTHING AND PERSONAL EFFECTS

1. Boots, partially burned.
2. Remnants of pants (size M – L).
3. Yellow coat, partially burned with multiple defects and attached melted aluminum foil.
4. Gloves, mostly intact.
5. Socks, partially burned.
6. Black T-shirt with red logo: Granite Mountain Interagency Hotshot Crew.
7. White undershorts.
8. Signal mirror.
9. Compass.
10. Melted electronic device, probably cellphone.
11. White metal ring on the left fourth finger.
12. Rubber bracelet.
13. What appears to be composition notebook with identifiable E-mail address.
14. Pocketknife.
15. Black pen.

EVIDENCE OF THERMAL INJURIES:

Most of the body is covered by soot. There are extensive third and fourth degree burns with areas of charring. The head, neck, and upper chest exhibits predominantly third degree burns with some areas of fourth degree burns. All upper and lower extremities show third and fourth degree burns with extensive tissue loss. The back exhibits mostly

ANDREW ASHCRAFT

13-04434

third degree burns. There is a heat related disarticulation present in the right knee. There is also heat related disarticulation present in the right elbow.

SCARS, TATTOOS, AND OTHER IDENTIFYING BODY FEATURES

1. There are tattoos with apparent names present on the upper anterior chest wall (see autopsy photographs).
2. There are extensive multicolored tattoos present on the left arm and forearm with identifiable heart and skull (see autopsy photographs).
3. There is a blue tattoo with the number "22" present on the left fourth finger under a white metal ring.
4. There is a tattoo present on the left ankle (Lone Wolf).
5. There is an ill-defined tattoo present on the lateral aspect of the left lower leg (see autopsy photographs).
6. There is an ill-defined tattoo present on the lateral aspect of the right arm.

GENERAL EXTERNAL EXAMINATION

The partially charred body is that of a male 70-1/2 inches in length and weighing 166 pounds. The body exhibits pugilistic position with heat related contractures of the upper extremities. The scalp hair is absent. The color of the irides cannot be determined. Dentition is natural. There is what appears to be soot present on the oral mucosa. The trachea is in the midline. The thorax is well developed and symmetrical. The abdomen is flat with a large defect on the right side with protruding burned loops of intestine. The external genitalia are those of a normal male, with testes in the scrotal sac. The extremities are well developed and show extensive thermal injuries. The posterior aspects of the torso show thermal injuries.

INTERNAL EXAMINATION

The body is opened by a standard Y-shaped thoracoabdominal incision. All viscera occupy their appropriate anatomic relationships. Subcutaneous adipose tissue ranges up to 1 cm in thickness over the abdominal wall. Both pleural cavities contain approximately 200 mL of hemorrhagic fluid. There are no adhesions present.

CARDIOVASCULAR SYSTEM

The 350-gram heart occupies its usual mediastinal site. The external configuration is not remarkable. The epicardial surfaces are smooth. All major vessels arise in their appropriate anatomic relationships. The coronary arteries arise normally and are distributed in a left dominant pattern. They show no significant atherosclerosis. The myocardium is dark brown and very soft with no hemorrhage or gross scarring. Cardiac chambers are slightly dilated. Ventricular thicknesses are: left 1.2 cm, right 0.5 cm, and 1.2 cm in the interventricular septum. The cardiac valves show no significant abnormalities.

ANDREW ASHCRAFT

13-04434

The aorta is of normal caliber, with all major arterial branches arising in their appropriate anatomic relationship. It shows no significant atherosclerosis, aneurysm formation, or dissection. No systemic venous abnormalities or thrombi are present.

RESPIRATORY SYSTEM

The lungs weigh 800 grams left and 975 grams right. The pleural surfaces are red-brown. The lungs are distended. The parenchyma is dark brown and very soft with no areas of consolidation or gross scarring. The bronchi are patent. The right main and lobar bronchi contain what appears to be fabric particles and soot. Similar material is present in the larynx.

DIGESTIVE/HEPATOBIILIARY SYSTEM

The oropharynx is grossly normal and containing a large amount of what appears to be soot. The esophagus is of normal caliber. The gastroesophageal junction is ill-defined. The gastric mucosa is autolyzed and the lumen contains no food. No areas of ulceration, hemorrhage, or scarring are present. Some loops of the small intestine show thermal injuries and protruding through defect of the anterior abdominal wall. The appendix is present. The pancreas is autolyzed.

The liver weighs 1510 grams. The capsule is intact. The parenchyma is red-brown with no localized masses or areas of hemorrhage on external or cut surfaces. The gallbladder contains viscid bile. The gallbladder mucosa is grossly normal.

GENITOURINARY SYSTEM

The kidneys weigh 125 grams left and 110 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.

The urinary bladder contains approximately 150 mL of yellow urine. The mucosal surfaces are flat and pink-tan. The prostate and seminal vesicles are not remarkable.

HEMATOPOIETIC SYSTEM

The spleen weighs 50 grams. The capsule is intact. The parenchyma is red-brown and very soft. Regional lymph nodes have their usual distribution and appearance.

ENDOCRINE SYSTEM

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

ANDREW ASHCRAFT

13-04434

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

There are no gross skeletal abnormalities except as previously described. The muscles are well developed and show dark brown discoloration.

NERVOUS SYSTEM

The scalp is reflected in the usual fashion. There are no contusions, lacerations, or abrasions. There is no skull fracture. The 1500-gram brain is covered by pale leptomeninges. There is no evidence of epidural or subdural hemorrhage. There is good preservation of cerebral symmetry without flattening of the gyri or widening of the sulci. Convolutional patterns remain intact. There is no evidence of herniation or either diffuse or localized swelling. The cerebral vessels are intact with no evidence of aneurysm or atherosclerosis. Cranial nerves are paired, symmetrical, and grossly normal. The brain tissue is very soft. Multiple sections of the brain reveal no injuries or other gross focal lesions. The ventricles contain clear liquid. The atlanto-occipital articulation is intact.

EVIDENCE

The following items of evidence are collected:

1. Items of personal protective equipment.
2. Signal mirror.
3. Compass.

TOXICOLOGY SPECIMENS

Samples of the blood, vitreous fluid, bile, urine, brain, spleen, liver, kidney, and psoas muscle are collected and submitted for toxicological testing.

FINAL SUMMARY

Based on the autopsy findings and investigative history, as available to me, it is my opinion that Andrew Ashcraft, a 29-year-old male, died as a result of thermal injuries sustained when he participated in liquidation of wildfire.

The manner of death is accident.

VS/ogm

D:07/02/2013

T:07/03/2013

ANDREW ASHCRAFT

13-04434

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
Forensic Science Center

701 West Jefferson Street
Phoenix, Arizona 85007-2908
Phone: (602) 506-3322
Fax: (602) 506-1546

July 8, 2013

Vladimir Shvarts, M.D.
Maricopa County Forensic Science Center
Phoenix, Arizona

Re: Maricopa County Medical Examiner Case # 13-4434

Dear Dr. Shvarts,

On July 2, 2013, a dental examination including dental radiographs was completed at the Maricopa County Forensic Science Center on Medical Examiner Case # 13-4434.

Also on July 2, 2013, I received the dental radiographs of Mr. Andrew Ashcraft from the dental office of Dr. James Crockett in Prescott, Arizona for a comparison to Case #13-4434.

Upon comparing the antemortem dental radiographs of Mr. Andrew Ashcraft and the postmortem dental radiographs of Case # 13-4434, a positive identification has been established, meaning that the antemortem and postmortem dental radiographs match in sufficient detail to establish that they are from the same individual.

Sincerely,

John A. Piakis DDS

John Piakis D.D.S., D.A.B.F.O.

Forensic Odontologist

Maricopa County

Phoenix, Arizona

VS

MARICOPA COUNTY OFFICE OF THE MEDICAL EXAMINER

REPORT OF TOXICOLOGICAL EXAMINATION

Case Number: 13-04434
Decedent: ANDREW STERLING ASHCRAFT
Date Submitted: 07/02/2013
Report Date: 08/16/2013

Specimens Collected: NASAL CAVITY SWABS, VITREOUS, SUBCUTANEOUS
ADIPOSE TISSUE, BILE, BLOT/FILTER PAPER, URINE,
CARDIAC BLOOD, CARDIAC BLOOD, LUNG, LUNG, LIVER,
PSOAS MUSCLE, BRAIN, BRAIN, KIDNEY, SPLEEN

Medical Examiner: VLADIMIR SHVARTS, MD

RESULTS*:


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

Cardiac Blood: Positive for
Acetone 15 mg%
Carboxyhemoglobin (13% Saturation)
None detected for ethanol, methanol, isopropanol, amphetamine,
methamphetamine, phencyclidine, cocaine, benzoylecgonine,
methadone, morphine, codeine, benzodiazepines, barbiturates,
antihistamines, phenothiazines, tricyclic antidepressants, fentanyl,
oxycodone, and acid neutral drugs

Brain and Lungs: 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

VS