

A U T O P S Y R E P O R T

NAME: JOBY GRAF

AUTOPSY NO. OP 86-29

AGE: 9 SEX: Male

INSTITUTION:

ATTENDING PHYSICIAN (or person
requesting autopsy): (JP) John Cabaniss

PLACE OF DEATH: his residence

PROSECTOR: Alan D. Northcutt, M.D.

DATE OF DEATH: August 26, 1986

LOCATION PERFORMED: Connally/Compton Funeral Home

HOUR OF DEATH (est.): 6:05 P.M.

FINAL DIAGNOSIS:

DATE OF AUTOPSY: August 27, 1986 at
11:00 A.M.

1. THIRD AND FOURTH DEGREE BURNS INVOLVING APPROXIMATELY 95% OF
BODY SURFACE AREA WITH EXPLOSION TYPE SKULL FRACTURE.
2. SMOKE INHALATION WITH CARBON IN BRONCHI AND CARBON MONOXIDE HEMOGLOBIN
LEVEL OF 86%.
3. NO OTHER INJURIES DETECTED.

CAUSE OF DEATH: SEVERE BURNS WITH SMOKE INHALATION.


 Alan D. Northcutt, M.D.
 September 12, 1986

F I N A L S U M M A R Y

The patient suffered extensive 3rd and 4th degree burns with skeletal muscle injury, exposure of articular surfaces, and an explosion-type fracture of the skull. The presence of soot in the bronchi and a markedly elevated carbon monoxide hemoglobin of 86% indicate the individual was alive at the time of the fire and inhaled smoke. An explosion-type skull fracture may be produced by intense heat.

The post mortem examination was performed by Alan D. Northcutt, M.D. beginning at 11:00 A.M. on August 27, 1986 at Connally/Compton Funeral Home under the authorization of Justice of the Peace John Cabaniss. Detectives from Hewitt, Texas were present during portions of the examination.

The history obtained from Judge Cabaniss is that of an explosion and fire which occurred in a shed at the residence of Jason and Joby Graf. The shed was known to contain paint and gasoline. Reportedly the fire department was called at 4:50 P.M. and the victim was pronounced dead at 6:05 P.M. on August 26, 1986.

GROSS DESCRIPTION

External Examination: The clothed body of a caucasian child was submitted for examination. He had been placed in a crash bag. The clothing had not been removed. The body is 54 inches in length with approximate weight of 95 pounds. Examination reveals a severely burned and charred body with 3rd and 4th degree burns with extensive exposure of skeletal muscle and bony articular surfaces. The burns involve approximately 95% of the body surface area.

Examination of the head reveals severe 4th degree burns of the face. The lips are completely destroyed and the teeth are exposed. The facial features are not clearly recognizable. No hair remains. An explosion type fracture of the temporal portions of the skull is present with a large flap of bone present. The dural surface of the brain is exposed and in the frontal area herniation of partially cooked brain is seen through the dura. Fourth degree burns of the chest and arms are present. In addition, bone is exposed including ribs, sternum, articular surfaces of the humerus, and the markedly distorted and twisted right hand. The left arm and hand are flexed and short remnants of the phalangeal bones are seen. In one area of the left chest a shaggy hole is burned through the chest wall and lung is seen underneath. Extensive exposure of skeletal muscle of the lower extremities is seen and bony articular surfaces at the knee are present. The right ankle joint also shows exposure of articular surfaces. The only clothing identified are small charred strips of cloth in the genital area and a left running type shoe with velcro closures with the numbers "3-4" inside the shoe. A white sock is also present on the left foot. The back of the body also shows extensive exposure of musculature by the charring with sparing only of portions of the buttocks.

With information obtained from the family by the funeral home director it is determined that this victim is consistent with the 9-year-old Joby Graf.

Internal Examination: The usual Y-shaped incision is made. The organs occupy their usual anatomic positions. The thymus is present and consistent with the child's age. A bright red discoloration is seen in many viscera. The larynx, trachea, and lungs are removed. The airways are opened and soot is present coating the surfaces from the larynx to the secondary segmental bronchi. The heart is sectioned and is remarkable only for bright red discoloration. The abdominal viscera are also unremarkable except for some red discoloration. The appendix is intact and is present in the right lower quadrant.

Urine from the bladder and blood from the right atrium are obtained. Blood is sent for carbon monoxide determination. Urine and blood are utilized for drug screening at the request of the Hewitt detectives.

MICROSCOPIC DESCRIPTION

The laryngo-tracheal section reveals the columnar respiratory epithelium of the mucosa with a section of esophagus and thyroid gland. Black granular material consistent with carbon is present within the lumen of the trachea and in some areas coats the epithelium. No inflammatory reaction is seen to this material, and no other significant histologic abnormalities are noted. Sections of the lung parenchyma reveal an intact architecture. Black granular pigment consistent with carbon particles are identified in some medium sized bronchi. There is marked congestion of the alveolar septal capillaries and focal intra-alveolar RBC extravasation. No inflammatory infiltrates are seen.

Sections from the herniated cerebral tissue reveal a predominantly intact architecture and good cellular preservation. Along one edge of the section the tissue shows increased eosinophilia and loss of cytologic detail, suggestive of heat injury.

Sections of the heart reveal good tissue preservation with some artifactual fragmentation and no histologic abnormalities. The thymus shows a normal lobular architecture and small Hassall's corpuscles, consistent with age. There is prominent interstitial congesti

The spleen shows marked fragmentation but adequate peri-arteriolar lymphoid sheath development. The pancreas shows near total autolysis. The kidney exhibits interstitial congestion and some early autolytic change. The appendix and liver are histologically unremarkable.

The drug abuse screen performed on a post mortem urine specimen was negative for cannabinoids, amphetamines, barbiturates, cocaine, codeine, propoxyphene, methadone, opiates, phencyclidine, and phenothiazines.

A carbon monoxide hemoglobin determination on serum was 86%.