



REGIONAL PATHOLOGY AND AUTOPSY SERVICES

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AUTOPSY PROTOCOL

Case No: **MCSO18-8630-2**

Name: **Hart, Sarah Margaret**

DOB: **4/8/1979**

Age: 38 years

Height: 65 inches

Weight: 142 pounds

Sex: Female

Date of Autopsy: 3/29/2018

Time of Autopsy: 1335 Hours

Pathologist: Greg B. Pizarro, M.D.

Client: Mendocino County Sheriff-Coroner

INVESTIGATIVE INFORMATION: According to investigative information, this 38-year-old female was found unresponsive pinned inside between the seats and roof of a vehicle at the bottom of a cliff. On 3/27/2018 at 1645 hours, the Mendocino County Sheriff's Office responded to a fatal traffic accident, located at the area of Juan Creek Bridge of Westport. The accident occurred on a large dirt turnout located west of Highway 1, on the south side of the Juan Creek Bridge. The vehicle was located on the shoreline, approximately 140 feet down the vista view's Cliffside. The vehicle was positioned on its roof, sustained significant damage and the roof had subsequently collapsed. Personnel from the California Highway Patrol (CHP), Westport Volunteer Fire Department, Fort Bragg Volunteer Fire Department and Cal Fire were on the scene to assist in recovery efforts. There was a total of five decedents found during the initial recovery; two were inside the vehicle and the remaining three were located in the vicinity of the vehicle. The driver of the vehicle was subsequently identified as Jennifer Hart (please refer to MCSO18-08630-1) and the front seat passenger was subsequently identified as Sarah Hart. The three other decedents who were in the vicinity of the vehicle were subsequently identified as Markis Hart (please refer to report MCSO18-08630-3), Abigail Hart (please refer to report MCSO18-08630-4) and Jeremiah Hart (please refer to report MCSO18-08630-5). It was later determined that three additional people were in the vehicle at the time of the accident, one of which washed ashore several weeks later and was subsequently identified as Ciera Hart (please refer to report MCSO18-09877). The other two passengers in the car, identified as Devonte Hart and Hannah Hart are still missing and have not been recovered at the time of this report. The CHP was investigating the accident (please refer to CHP report #9150-2018-00207). The decedent had an unknown past medical history. The autopsy is ordered by the Mendocino County Sheriff-Coroner.

WITNESSES: Outside observers include California Highway Patrol (CHP) Ukiah Investigator J. Slates,

CHP Multidisciplinary Accident Investigation Team (MAIT) Investigator S. Hamann and CHP MAIT Officer T. Roloff. I am assisted by E. Mandel.

PRELIMINARY EXAMINATION: The body is received secured in a red plastic pouch with the inscription "COR18-8630 Hart, Sarah" on a preparatory table at Eversole Mortuary, Ukiah, CA. When first viewed at gross examination, the decedent is clad in (a) a black lined hoodie jacket, (b) a gray flannel hoodie sweatshirt, (c) blue denim jeans, (d) a gray and blue long sleeve T-shirt, (e) a black short sleeve T-shirt, (f) a black camisole with built in bra, (g) dark gray panties, (h) two black socks; all of which were returned with the body.

Additional items accompanying the decedent include:

1. A possible white powder in the left jacket pocket.
2. A tissue in the right jeans pocket.
3. Three keys composed of one house key and two car ignition keys in the right jacket pocket.
4. A yellow metal earring in the left ear.
5. A tampon inside the vagina.

EVIDENCE OF MEDICAL THERAPY: There is no medical therapy.

EXTERNAL EXAMINATION: The body is that of a well-developed, well-nourished, adult white female whose appearance is consistent with the reported given age of 38 years.

The head is symmetric, normocephalic and with a few cutaneous injuries that will be described below. The scalp is intact and atraumatic, covered with long length, straight brown hair with a non-receding anterior hairline and without balding. There is average body hair of female pattern distribution. The face is pale, normally formed, symmetric, and without visible injury or lesion. The nose and facial bones are intact by palpation. The eyelids are slightly open, intact and unremarkable. The conjunctivae are clear without petechial hemorrhages, pallor or icterus. The sclerae are white but congested, without petechial hemorrhages or icterus and the corneas are clear. The irides are blue, and the pupils are equally dilated at 7 millimeters. The orbits are unremarkable. The nose is atraumatic, symmetric, and unremarkable. The nares are unobstructed. The lips are normally formed. The mouth has native dentition in good repair, characterized by the absence of caries. The remaining oral mucosa is tan, moist, and unremarkable, without visible injury or palpable lesion. The frenula are intact. The external ears are normally formed, symmetric, and unremarkable, without visible injury or drainage. The right earlobe is pierced twice. The left earlobe is pierced twice.

The neck is supple, normally formed, symmetric, and without visible injury or lesion. The breasts are medium sized, symmetric, atraumatic, and unremarkable, without palpable masses. The chest is normally formed, symmetric, and without visible injury or lesion. The abdomen is scaphoid, soft and tympanic to percussion, with a single contusion that will be described below. The back is straight and symmetric, without visible injury or lesion. The atraumatic external genitalia are those of a normally developed adult female, characterized by intact introitus with normal vulva and vagina. The anus is patent, without visible injury or lesion.

The upper extremities are normally formed, symmetric, and with a few cutaneous injuries that will be described below. There are no needle punctures or track marks. There are no ventral wrist scars. The fingernails are clean, trim, and do not extend beyond the fingertips. The lower extremities are normally formed, symmetric, and with several cutaneous injuries that will be described below. The lower extremities are free of edema. The toenails are clean, trim, and short.

IDENTIFYING MARKS AND SCARS:

Scars: A 7/8 inch diagonal scar on the anterior right thigh.

Tattoos: An encircling vine with one butterfly tattoo on the right ankle.

EVIDENCE OF POSTMORTEM CHANGES: The body is well preserved, cold (having been refrigerated), and has not been embalmed. Rigor mortis is absent in the jaw and extremities. Livor mortis is pink-purple, fixed/blanches with light pressure, and in a posterior distribution.

EVIDENCE OF INJURY: There are multiple acute traumatic cutaneous injuries which include the following:

- A 1-1/4 x 1/2 inch abrasion on the left forehead.
- A 3/8 inch in diameter abrasion on the right lower chin.
- A 1-1/2 x 1 inch contusion on the right lower quadrant of the abdomen.
- A small 3/16 inch superficial laceration on the lateral dorsal right hand, above the right thumb.
- A 1/4 inch in diameter abrasion on the dorsal right hand.
- A 3/4 inch in diameter contusion on the dorsal right proximal 4th finger.
- A 3/4 inch vertical abrasion on the anterior right upper thigh, below the right inguinal area.
- A contusion covering a surface area measuring 6 x 3 inches, on the anterior right thigh.
- A 1-1/4 x 1 inch contusion below the right knee.
- A 1-1/4 x 1 inch contusion on the lateral left leg.
- A 4 x 1 inch contusion with a 1 inch abrasion on the inferior aspect of the contusion on the lateral right leg.
- From superior to inferior, a 1/2 inch and a 1/4 inch abrasions, respectively, on the lateral left ankle.
- A 1-1/4 x 1 inch contusion on the dorsal left foot.

These injuries, having been described above, will not be repeated.

INTERNAL EXAMINATION: The subcutaneous fat is approximately 4.0 centimeters in its maximum thickness at the mid-abdomen. There are fractures of the right anterior 7th and right lateral 9th and 10th ribs with corresponding adjacent intercostal hemorrhage secondary to trauma. There is presence of an atlanto-occipital dislocation with free movement of the neck. The pleural cavities are free of adhesions. The right pleural cavity contains 100 milliliters of clear reddish serosanguinous fluid. The left pleural cavity contains 50 milliliters of clear reddish serosanguinous fluid. The visceral and parietal pleurae are intact and unremarkable with smooth, glistening surfaces. The pericardial sac is intact and unremarkable without abnormal fluid collection. The abdominal cavity is intact and unremarkable without excess fluid,

hemorrhage, exudates, or adhesions. The thoracoabdominal organs are in their usual positions. The diaphragm is intact.

NECK: The neck is dissected in a layer-by-layer method after the thoracoabdominal and cranial contents are removed. The superficial and deep muscles of the neck are firm, red-brown, intact, and unremarkable, without hemorrhage or laceration. The soft, red-brown tongue is unremarkable without intramuscular hemorrhage, laceration, or infiltrate. The hyoid bone is intact without fracture or periosteal soft tissue hemorrhage. The thyroid and cricoid cartilages are intact without fracture or adjacent soft tissue hemorrhage. The mucosa of the larynx and trachea are unremarkable without intraluminal obstructive lesion, ulceration, laceration, or fistula. Rare froth is present underneath both vocal cords. There are no prevertebral fascial hemorrhages or underlying cervical vertebral fractures.

CARDIOVASCULAR SYSTEM: The 240 gram heart has a smooth, glistening, unremarkable epicardium. The cardiac contour is unremarkable. The coronary arteries arise from the aorta in a normal fashion and follow their usual anatomic pathways. The coronary ostia are patent. The posterior interventricular septum receives its blood supply from the left circumflex coronary artery. The coronary arteries are patent and have no significant atherosclerosis. There is no occlusive thrombus of the epicardial vessels. The myocardium is red-brown, firm, and uniform, without focal fibrosis, softening, or hyperemia. The right ventricle, left ventricle, and interventricular septum measure 0.4 cm, 1.1 cm, and 1.0 cm respectively. The endocardium is intact, smooth, and glistening, without thickening or fibrosis. The valve cusps and leaflets are of normal number, pliable, intact, and free of vegetations. The chordae tendineae are thin and delicate. The papillary muscles are intact. Valvular circumferential measurements are tricuspid 13.0 cm, pulmonic 7.5 cm, mitral 10.0 cm, and aortic 7.0 cm. The cardiac chambers are normally dilated. The atrial and ventricular septa are free of defects. The aorta and its major branches have normal pathways and exhibit foci of fine atheromatous plaques throughout. There are no vascular anomalies or aneurysms. The venae cavae and major veins are all patent, intact, and unremarkable, with smooth, yellow-tan intima.

RESPIRATORY SYSTEM: The right and left lungs weigh 560 grams and 490 grams, respectively, and have the usual lobation. A small laceration is present on the right lower lobe, while a contusion is present on the right middle lobe. The pleural surfaces are smooth and glistening. The lungs have anthracotic pigment. The parenchyma is dark red, subcrepitant, severely congested and mildly edematous. The lungs have no consolidation, hemorrhage, infarct, tumor, gross fibrosis, or enlargement of airspaces. The tracheobronchial tree has pink-tan, unremarkable mucosa and is patent without intraluminal obstructive lesion. The pulmonary vessels are patent and have a yellow-tan, smooth intima without thromboemboli.

HEPATOBIILIARY SYSTEM: The 1210 gram liver has a smooth, intact capsule with a sharp anterior margin. The hepatic parenchyma is red-brown, congested and uniform without yellow discoloration, palpable fibrosis, hemorrhage, or mass lesion. The hepatic artery and portal vein are patent and intact. The gallbladder is intact and contains approximately 20 milliliters of dark green, viscid bile without calculi. The gallbladder wall is thin and uniform, with a velvety, green mucosa.

HEMATOPOIETIC SYSTEM: The 110 gram spleen is intact and has a smooth, gray, translucent capsule. The splenic pulp is moderately firm, purple-red, and unremarkable, with conspicuous corpuscles. The thymus has been replaced by adipose tissue and is unremarkable. The thoracoabdominal and cervical lymph nodes are not enlarged. The visible bone marrow is unremarkable.

ENDOCRINE SYSTEM: The pituitary gland is intact, normally developed, and unremarkable without laceration, hemorrhage, or mass lesion. The thyroid gland is symmetric and unremarkable, with a firm, dark red, granular parenchyma without cyst, hemorrhage, fibrosis, or mass lesion. The adrenal glands are normally situated and have soft, yellow cortices and soft, gray-brown medullae. The pancreas weighs 100 grams and has a soft, tan parenchyma with a normal lobular architecture without saponification, pseudocyst, neoplasm, fibrosis, hemorrhage, or mineralization.

GASTROINTESTINAL SYSTEM: The oropharynx has a tan, smooth, unremarkable mucosa. The laryngopharynx has a tan, smooth, unremarkable mucosa, without erythema, ulceration, or mass lesion. The esophagus has a smooth, mildly congested reddish-tan mucosa. The stomach has a smooth, tan serosa and a smooth, mildly congested reddish-tan mucosa with normal rugal folds. The gastric wall is not thickened or indurated. The gastric contents consist of approximately 50 milliliters of light brown, turbid fluid without identifiable food material. The stomach does not contain identifiable tablets, capsules, or pill fragments. The duodenum has a smooth, bile-stained mucosa without ulcers. The small intestine has a smooth, tan serosa and is not dilated or obstructed. The large intestine has normal haustral markings and a vermiform appendix without descending or sigmoid colonic diverticula. The rectum has a smooth, tan mucosa.

GENITOURINARY SYSTEM: The right and left kidneys weigh 110 grams and 150 grams, respectively. The renal capsules are intact and strip with ease from the underlying cortices. The kidneys have smooth cortical surfaces without persistent fetal lobulations. The renal parenchyma is firm, dark red-brown, and has a good corticomedullary definition with an average cortical thickness measuring 0.4 cm. The pyramids and papillae are unremarkable. The pelvicalyceal systems are normal without dilatation or obstruction. The ureters are normal in course and caliber to the urinary bladder. The renal arteries and veins are unremarkable. The urinary bladder is intact but distended with a smooth, tan mucosa without thickening, erythema, hemorrhage, ulcer, or mass lesion. The urinary bladder contains approximately 300 milliliters of clear, yellow urine.

The vaginal mucosa is tan, smooth, and unremarkable, without abrasion, laceration, ulcer, or mass lesion. The ectocervix is smooth, tan, and unremarkable, with a 0.5 cm os. The endocervical canal is tan and unremarkable, without mass lesion, induration, or necrosis. The uterine serosa is smooth, tan, and unremarkable, with a tan, homogeneous myometrium and a tan, smooth endometrium. The uterus is free of hemorrhage or mass lesion. The fallopian tubes have a smooth, tan serosa and are unremarkable. The ovaries have a white, opaque, cerebriform serosa with a tan, homogeneous, fibrotic parenchyma, without cyst, hemorrhage, or mass lesion. No intrauterine or extrauterine pregnancy is identified.

MUSCULOSKELETAL SYSTEM: The musculoskeletal system is well developed and free of deformity. The skeletal muscle is red-brown and firm, without focal lesions. The skeleton is normally

developed and with the rib fractures described above. The cervical spinal column is unstable on internal palpation due to the atlanto-occipital dislocation described above.

HEAD AND CENTRAL NERVOUS SYSTEM: The reflected scalp shows left parietal scalp subcutaneous hemorrhage. The galeal soft tissues and temporalis muscles are intact and unremarkable. The calvarium is intact and without fracture. The dura mater is intact and unremarkable. The epidural and subdural spaces are free of blood. The 1300 gram brain has minimal to mild global edema but with symmetric cerebral and cerebellar hemispheres covered by thin, congested, transparent leptomeninges, without subarachnoid hemorrhage, exudate, or cortical contusions. The cerebral cortex is tan and uniform, with a normal gyral pattern. There is no flattening of the gyri, narrowing of the sulci, midline shift, or evidence of herniation. The cerebral white matter is uniform throughout. The caudate nuclei, basal ganglia, and thalami are tan, uniform, and symmetric. The ventricles are normal in caliber and contain clear, colorless cerebrospinal fluid and congested choroid plexus. The midbrain, cerebellum, pons, and medulla oblongata are free of abnormalities. The substantia nigra is normally pigmented. The cranial nerves and mammillary bodies are symmetric and unremarkable. The arteries at the base of the brain are free of atherosclerosis and aneurysms. The anterior, middle, and posterior cranial fossae are free of fractures. The proximal cervical spinal cord is firm and symmetric with the presence of the atlanto-occipital dislocation described previously.

The remaining spinal cord is not examined.

SPECIMENS RETAINED:

RETAINED TISSUE: Representative sections of major organs and other tissues are collected in formalin and retained.

TOXICOLOGY: Samples of central and peripheral blood, vitreous humor, bile, urine, and liver are collected and sent for toxicology.

PHOTOGRAPHS: Full body overall photographs and photographs of the cutaneous injuries, skull and brain are taken by CHP MAIT Officer T. Roloff, G.B. Pizarro, M.D. and E. Mandel.

RADIOGRAPHS: No radiographs are taken.

EVIDENCE: Evidence taken includes a blood spot on FTA filter paper.

AUTOPSY FINDINGS:

1. Atlanto-occipital dislocation of the first and second cervical vertebra.
2. Left parietal scalp subcutaneous hemorrhage.
3. Multiple rib fractures, right, with corresponding adjacent intercostal hemorrhage.

4. Multiple cutaneous traumatic injuries.
5. Pleural effusions, bilateral, serosanguinous type (50 ml left, 100 ml right).
6. Lung laceration, small, right lower lobe.
7. Lung contusion, right middle lobe.
8. Pulmonary vascular congestion, bilateral, severe, with mild edema.
9. Generalized visceral congestion.
10. **Toxicology:** Presence of Diphenhydramine in the peripheral blood (Please refer to separate Toxicology report).

**CAUSE OF DEATH: ATLANTO-OCCIPITAL DISLOCATION WITH TRAUMATIC ASPHYXIA
(SECONDS)**

DUE TO: PINNED BETWEEN SEATS AND ROOF (SECONDS)

DUE TO: MOTOR VEHICLE ROLLOVER OVER CLIFF (SECONDS)

OTHER SIGNIFICANT CONDITIONS: DIPHENHYDRAMINE PRESENT

A handwritten signature in blue ink, appearing to read 'Greg B. Pizarro, M.D.', with a stylized flourish at the end.

Greg B. Pizarro, M.D.
Pathologist

Electronically signed under the express direction of Greg Pizarro, M.D. on 8/3/2018