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## AUTOPSY PROTOCOL

Case No: MCSO18-08630-1

Name: Hart, Jennifer Jean

*DOB*: **6/4/1979** 

Age: 38 years Height: 67 inches Weight: 206 pounds

Sex: Female Date of Autopsy: 3/29/2018 Time of Autopsy: 1020 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 off 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 and the front seat passenger was subsequently identified as Sarah Hart (please refer to report MCSO18-08630-2). 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.

<u>WITNESSES:</u> 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 wrapped in a white plastic sheet secured in a red plastic pouch on a preparatory table at Eversole Mortuary, Ukiah, CA. The pouch is inscribed with "Jennifer Jane Doe #2 COR 18 8630 WFA". When first viewed at gross examination, the decedent is clad in (a) a gray flannel hoodie sweatshirt, (b) black and white multipatterned leggings, (c) a yellow T-shirt, (d) pink panties, (e) a black sock on the left foot and (f) a loose gray left shoe; all of which were returned with the body.

## **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 body presents a medium to large-set build.

The head is symmetric, and normocephalic with multiple traumatic 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 to plentiful body hair of female pattern distribution. The face is pale, normally formed, symmetric, and with multiple cutaneous injuries, including deep abrasions and lacerations on the right side of the face that will be described below. The facial bones are intact by palpation. The nasal bones are fractured with a torn septum. The eyelid is closed in the left eye and open in the right eye, but both are intact with cutaneous injuries that will be described below. The conjunctivae are cloudy without petechial hemorrhages, pallor or icterus. The sclerae are white, and the corneas are cloudy. The irides are brown, and the pupils are equally dilated at 7 millimeters. The nose has traumatic injuries but is symmetric. 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 mandible has been fractured. The frenula are intact. The external ears are normally formed, symmetric, and unremarkable, without visible injury or drainage. There are bilateral earlobe creases. The right earlobe is pierced once. The left earlobe is pierced once.

The neck is supple, normally formed, symmetric, and without visible injury or lesion. The trachea is palpable in the midline, symmetric and unremarkable. The breasts are small sized, symmetric, atraumatic, and unremarkable, without palpable masses. The chest is normally formed, symmetric, and with cutaneous injuries that will be described below. The abdomen is soft, flat and tympanic to percussion, with cutaneous injuries 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 unremarkable, with cutaneous injuries in the left arm that will be described below. Both hands are wrinkled. 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 unremarkable, with 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: There are no surgical scars.

Tattoos: None identified.

**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 and in a posterior distribution.

## **EVIDENCE OF INJURY:** There are multiple traumatic cutaneous injuries that include the following:

- A 2 inch irregular laceration on the center of the forehead and traversing to the bridge of the nose on the left side.
- A 2 inch irregular laceration on the right forehead, above the right eyebrow.
- A 1 inch diagonal laceration traversing the left eyebrow.
- From lateral to medial, a ½ inch and a ¾ inch lacerations, respectively, on the right temple, lateral to the irregular laceration on the right forehead described previously.
- A 1 inch laceration below the left eye.
- A ½ inch irregular laceration below the right eye.
- A ¼ inch laceration on the left upper lip.
- A 1 x  $\frac{1}{2}$  inch contusion on the left chin.
- Two 1/8 inch superficial lacerations on the right chin.
- A large area of deep abrasions, covering a surface area measuring 9 x 6 inches, on the right side of the face.
- A 2 x  $\frac{3}{4}$  inch abrasion on the right lateral shoulder.
- A 1 x ½ inch contusion on the left antecubital fossa.
- Scattered contusions covering a surface area measuring 5 x 2 inches, on the anterior left forearm.
- A 2 x 1-1/2 inch contusion below the left elbow.
- A contusion measuring 6 x 3 inches on the posterior left forearm and dorsal left hand.
- A large area of diagonal abrasions, covering a surface area measuring 14 x 12 inches, from the left breast and extending to the right lower quadrant of the abdomen.
- A 7 x 4 inch contusion on the medial and anterior aspect of the left upper thigh.
- A 2 x 1 inch contusion on the medial left lower thigh.
- Scattered contusions, covering a surface area measuring 5-1/2 x 3-1/2 inches, on the left knee; along with the presence of a ½ inch abrasion on the medial left knee.
- A 7-1/2 x 2-1/2 inch diagonal contusion on the right upper thigh, below the right inguinal area.
- A 4 x <sup>3</sup>/<sub>4</sub> inch dried abrasion on the lateral right upper thigh, traversing the diagonal contusion below the right inguinal area described previously.
- A 3-1/2 x 1 inch contusion on the medial upper right thigh, below the diagonal contusion that is located below the right inguinal area described previously.

- A 3-1/2 x 2-1/2 inch contusion on the anterior right leg, along with the presence of a 1-1/2 inch abrasion on the lateral aspect of this injury.
- A ½ inch superficial laceration without hyperemia on the medial right ankle.
- A 1-1/2 x  $\frac{1}{2}$  inch abrasion on the lateral posterior right thigh.

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

INTERNAL EXAMINATION: The subcutaneous fat is approximately 5.5 centimeters in its maximum thickness at the mid-abdomen. There are fractures of the posterolateral 9<sup>th</sup> and 10<sup>th</sup> and posterior 3<sup>rd</sup> to 10<sup>th</sup> ribs with corresponding adjacent intercostal hemorrhage consistent with trauma. There is also a fracture of the 3<sup>rd</sup> cervical vertebral body, but there is no transection of the spinal cord. There is presence of an atlanto-occipital dislocation with free movement of the neck. The left pleural cavity is free of abnormal collections of fluid, hemorrhage, and adhesions. The right pleural cavity contains 50 milliliters of clear reddish serosanguinous fluid and with absence of adhesions. The visceral and parietal pleurae are intact and unremarkable in the left lung but with injuries in the right lung that will be described below; along 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, exudates, or adhesions. The abdominal cavity contains 100 milliliters of blood. 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 periosseous 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. There are prevertebral fascial hemorrhages and a fracture of the 3<sup>rd</sup> cervical vertebral body described previously.

CARDIOVASCULAR SYSTEM: The 330 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 0.3 cm, 1.4 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 11.0 cm, pulmonic 6.0 cm, mitral 9.0 cm, and aortic 5.5 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. There are no vascular anomalies or aneurysms. The venae cavae and major veins are all patent, intact, and unremarkable, with smooth, yellow-tan intimae.

**RESPIRATORY SYSTEM:** The right and left lungs weigh 410 grams and 330 grams, respectively, and have the usual lobation. The pleural surfaces are smooth and glistening. Several lacerations are present on the right upper and right lower lobes of the lung. 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.

**HEPATOBILIARY SYSTEM:** The 1660 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. There are lacerations on the superior left lobe, ranging in size from 1 to 3 inches. The hepatic artery and portal vein are patent and intact. The gallbladder is intact and contains approximately 30 milliliters of dark green, viscid bile without calculi. The gallbladder wall is thin and uniform, with a velvety, green mucosa.

**HEMATOPOIETIC SYSTEM:** The 150 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, grey-brown medullae. The pancreas weighs 180 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, gray-white mucosa. The stomach has a smooth, tan serosa and a smooth, tan mucosa with normal rugal folds. The gastric wall is not thickened or indurated. The gastric contents consist of approximately 200 milliliters of dark salmon-red, 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 120 grams and 130 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 corticomedulary definition with an average cortical thickness measuring 0.5 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 with a smooth, tan mucosa without thickening, erythema, hemorrhage, ulcer, or mass lesion. The urinary bladder is devoid of 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 0.3 cm os. The endocervical canal is tan and unremarkable, without mass lesion, induration, or necrosis. The uterine serosa is smooth and tan, with multiple subserosal and transmural white-tan whorl like masses consistent with leiomyomas ranging in size from 0.5 - 2.0 cm in greatest diameter; and a tan, homogeneous myometrium and a tan, smooth endometrium. The uterus is free of hemorrhage. The fallopian tubes have a smooth, tan serosa and are unremarkable. The right ovary has a smooth lined hemorrhagic cyst measuring 3.0 cm in greatest diameter. The remaining right and left 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, with focal hemorrhage from the traumatic lesions described above. The skeleton is normally developed and with fractures described above. The cervical spinal column is unstable with the presence of cervical fracture of the 3<sup>rd</sup> cervical body along with focal hemorrhage as described above.

HEAD AND CENTRAL NERVOUS SYSTEM: The reflected scalp has the presence of right frontal and bilateral occipital subcutaneous hemorrhage; the left side more than the right. There are hemorrhages in the right parietal and bilateral occipital subgaleal tissues. The 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 1390 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, symmetric, with the presence of the atlantooccipital dislocation described previously.

The remaining spinal cord is not examined.

#### **SPECIMENS RETAINED:**

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

<u>TOXICOLOGY</u>: Samples of central and peripheral blood, vitreous humor, bile, and liver are collected and sent for toxicology.

<u>PHOTOGRAPHS</u>: Full body overall photographs and photographs of the injuries are taken by CHP MAIT Officer T. Roloff and E. Mandel.

RADIOGRAPHS: No radiographs are taken.

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

#### **AUTOPSY FINDINGS:**

- 1. Atlanto-occipital dislocation of the first and second cervical vertebra.
- 2. Right frontal and bilateral occipital subcutaneous scalp hemorrhage and right parietal and bilateral occipital subgaleal hemorrhage.
- 3. Fracture of the 3<sup>rd</sup> cervical vertebral body with adjacent paravertebral hemorrhage.
- 4. Multiple rib fractures, right, with corresponding adjacent intercostal hemorrhage.
- 5. Multiple cutaneous traumatic injuries.
- 6. Pleural effusion, right, serosanguinous type (50 ml).
- 7. Hemoperitoneum (100 ml).
- 8. Lung lacerations, multiple, evidenced in right upper and right lower lobes.
- 9. Liver lacerations, multiple, left upper lobe (1-3 inches).
- 10. Pulmonary vascular congestion, bilateral, severe, with mild edema.
- 11. Generalized visceral congestion.
- 12. <u>Toxicology:</u> Presence of Ethanol at 102 mg/dL (0.102 g/100 ml or 0.102 grams %) in the peripheral blood and 104 mg/dL (0.104 g/100 ml or 0.104 grams %) in the vitreous humor (Please refer to separate Toxicology report).
- 13. Leiomyomas, multiple, transmural and subserosal type (0.5 to 3.0 cm in greatest diameter).
- 14. Hemorrhagic cyst, right ovary (3.0 cm in greatest diameter).

# CAUSE OF DEATH: MULTIPLE BLUNT FORCE INJURIES, ESPECIALLY NECK AND RIGHT CHEST (SECONDS)

# <u>DUE TO:</u> MOTOR VEHICLE PLUNGE OFF CLIFF WITH ROLLOVER (DRIVER) (SECONDS)

### OTHER SIGNIFICANT CONDITIONS: ETHANOL PRESENT

Greg B. Pizarro, M.D. Pathologist

Electronically signed under the express direction of Greg Pizarro, M.D. on 6/11/2018