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Report of Consultation
Re: Estate of Yearly Love v. George W. Huquely, V
(Circuit Court for the City of Charlottesville, No. CL2012-130)

Dear Mr. Green:

Introduction

You have asked me to review materials and to provide consultation in the field of forensic pathology, which I have practiced for thirty years. After receiving my MD degree from the University of Michigan in 1980, I completed training in anatomic pathology at the New York University Medical Center (1980-1983) and in forensic pathology at the Office of the Chief Medical Examiner for the State of Maryland (1983-1984). I have been certified in both anatomic and forensic pathology by the American Board of Pathology since 1985. I am currently licensed to practice medicine in five states. I spent most of my career as a government-employed medical examiner, including nine years with the Office of Chief Medical Examiner for the City of New York where I finished as First Deputy Chief Medical Examiner, and more than five years as the Chief Medical Examiner of Washington, DC. I am currently President of Arden Forensics, PC, a consulting practice in forensic pathology and medicine, and I hold a part-time appointment as a Forensic Pathologist in the Office of the Chief Medical Examiner for the State of West Virginia.

I have testified as an expert witness in various state and federal courts, as well as in grand juries and depositions, a total of more than 800 times. My fees are not contingent upon the outcome of any case in which I consult.

Materials Reviewed

I have reviewed the following materials regarding the above-captioned case:

- Records pertaining to Yearly Reynolds Love from the Virginia Office of the Chief Medical Examiner ("OCME") under File No. C2010-50249, including reports of investigation, Report of Autopsy (Autopsy No. 290-10), and toxicology report;
- Photographs pertaining to Yearly Reynolds Love from OCME;
- Records pertaining to Yearly Reynolds Love from the Virginia Department of Forensic Science ("DOFS");
- Photographs pertaining to Yearly Reynolds Love from DOFS;

- Records pertaining to Yearly Reynolds Love from the University of Virginia Health System;
- Records pertaining to Yearly Reynolds Love from the University of Virginia (“UVA”), including records from the UVA Athletics Department and UVA Student Health;
- Video and transcript of police interview of George W. Huguely on 5/3/2010;
- Transcript of deposition of Caitlyn Whitely, 4/30/2015;
- Transcript of deposition of Anna Elyse Lehman, MD, 11/19/2015;
- Transcript of deposition of William T. Gormley, MD, 5/25/2016; and
- Amended Complaint.

I have also relied upon my education, training and experience as a physician, forensic pathologist and a medical examiner.

Brief Case Synopsis and Issues to be Addressed

Yearly Love was a 22 year old UVA student who was found dead by her roommate, in her bed at her apartment in Charlottesville, at approximately 2:30 AM on 5/3/2010. The door to her bedroom had a hole in it. Ms. Love had facial injuries. A police investigation was begun, and her death was reported to and investigated by the OCME. An autopsy was performed by OCME on 5/4/2010, which revealed that she had various blunt impact injuries primarily to her head and face, including: contusions (i.e., bruising) to her right eye area and lower lip; a laceration (i.e., splitting) of the upper lip frenulum (which is the bridge of tissue between the inner lip and the gums); scalp hemorrhages (without skull fractures); brain contusions distributed on the medial surfaces of the left temporal and right parieto-occipital lobes, with pinpoint hemorrhages in the deeper structures and the brain stem; and subarachnoid hemorrhage (i.e., bleeding beneath the surface membrane) at the base of the brain, with blood filling the aqueduct and fourth ventricle (which are parts of the spinal-fluid-filled chambers in the lower brain). The cause of death was certified as “Blunt Force Injuries to Head” and the manner of death as “Homicide.” Postmortem toxicological analysis revealed that Ms. Love had an elevated alcohol concentration in both her blood (at 0.14%) and in her vitreous humor (i.e., eye fluid, at 0.18%); she also had 0.05 mg/L concentration of amphetamine in her iliac blood sample (which had been prescribed to her as Adderall).

Mr. Huguely, who was Ms. Love’s boyfriend, was interviewed by the police in connection with her death. In his interview, he said that he was at her apartment that night for approximately 8 – 10 minutes. He indicated that he had consumed a large amount of alcohol that day, and that when he was at her apartment briefly, they had an argument with an altercation, in which he said that they were wrestling and that he held her down, and that she hit her head. He believed that she was alive when he left the apartment, and was very surprised during the interview when they told him that she was dead.

Anna Lehman lived in the apartment directly beneath Ms. Love’s apartment at the time of the death. She testified that late on 5/2/2010 she heard heavy footsteps going up the stairs and into Ms. Love’s apartment, followed by a loud noise (like a piece of furniture falling), in turn followed by footsteps going back down the stairs. She did not hear any screaming, yelling or conversation from the apartment above when she heard the footsteps and the loud noise. She looked out of her window after hearing the descending footsteps and saw a man walking away from the building. She estimated that the entire event took less than 10 minutes.

I shall address primarily the interpretation of the nature and pattern of her injuries, in light of the circumstantial evidence regarding the events that caused her death.

Analysis and Opinions

I concur with the conclusion of the medical examiner regarding the cause of death of Ms. Love, namely that she died as a result of blunt impact head injuries. However, her head injuries had some unusual features that reflect the nature of their causation, and the circumstantial evidence related to this event also can assist in characterizing the events.

First, the evidence indicates that the episode in which she received her head injuries was brief. The witness in the apartment one floor below testified that the sequence consisting of hearing the footsteps entering, then the loud noise, and finally hearing the footsteps exiting the apartment encompassed less than 10 minutes. Consistent with her observation, Mr. Huguely related to the police that he was in Ms. Love's apartment for 8 – 10 minutes. The downstairs neighbor further testified that other than the one loud noise, she did not hear any screaming, yelling or conversation from the apartment above, which indicates that there was no evidence that a loud argument, or screaming in response to an attack, were occurring at that time. Also consistent with this having been a brief encounter was that the scene (i.e., the bedroom) was not disturbed when she was found, which is further evidence against a major physical altercation having occurred. Finally, Ms. Lehman saw a man (presumably Mr. Huguely, in retrospect) walking away from the building, not running away. She said that this incident occurred late on 5/2/2010, so presumably this was before midnight.

Ms. Love sustained head and brain injuries in an unusual pattern (discussed further below) that were not anatomically very severe (their fatal outcome notwithstanding). By their nature, these brain injuries were not likely to have been rapidly fatal, although they were likely to have caused rapid unconsciousness. In support of the conclusion that she did not die immediately or rapidly after being injured, she had swelling of her facial injuries, which is a process that takes time to develop. Similarly, she had subarachnoid hemorrhage that had accumulated in the basal cisterns (subarachnoid spaces at the base of the brain) and she had hemorrhage within the lower part of the ventricular system (inside the brain stem), which is another process that takes some time to occur. While I cannot estimate with reasonable medical certainty how long she survived after having been injured, the evidence does indicate that she had a survival interval between injury and death, which is consistent with her having been alive when Mr. Huguely left the apartment. A related issue is that during her survival interval, she would have continued to metabolize the alcohol in her system (and to absorb alcohol, if any, still in her stomach), so one cannot reliably extrapolate her blood alcohol concentration at the time of death based on a single postmortem blood alcohol measurement. However, given the timing between her injuries and being found dead, and that she had a significantly elevated postmortem blood alcohol concentration, she would have had an elevated blood alcohol when she was injured.

Ms. Love sustained surface injuries that were not particularly severe, especially in the context of fatal head injuries. She had no fractures of the skull or facial bones. The more superficial injuries were predominantly to her right face and right side of her head, which is consistent with impact on a broader surface, including a forceful fall to the floor. Internally, she had no accumulation of any subdural hemorrhage, and her brain injuries were relatively small and distributed on the medial surfaces (i.e., the aspects of the cerebral hemispheres facing the midline), with basilar subarachnoid hemorrhage. This is a very unusual distribution of brain contusions from blunt impact; the medial surfaces of the cerebral hemispheres are not where brain contusions from simple impacts usually occur, so they suggest a different scenario of impact to explain this distribution. This is further suggested by the pinpoint hemorrhages in the deeper structures, which are also atypical locations for brain contusions caused by simple impacts. The more central location of brain injuries indicates a mechanism of impact that

concentrates the forces along the shock wave traveling through the brain, causing more central (i.e., deeper) brain contusions and hemorrhages. One way in which what appears to be a relatively lesser degree of force (based on the less severe surface injuries and absence of fractures) can cause a greater degree of brain damage is if the head is supported (against a firm surface) at the time of impact. A supported head cannot absorb and distribute some of the forces of the impact by moving in response to the impact, so the forces are delivered preferentially to the brain, causing disproportionate injuries, often in an atypical distribution within the brain. In my opinion, a supported head injury scenario explains the types of findings in Ms. Love and the fatal outcome.

The supported head injury scenario is also suggested by the accounts given to the police by Mr. Huguely of the events that night, which included references to wrestling, and holding her on the floor. While at least one of her injuries (the laceration of the upper lip frenulum) is suggestive of a direct impact to her face, the majority of the remaining facial and head injuries is consistent with a forceful impact to a supported head on the floor. The pattern of her injuries could largely be accounted for if, during the activity described by Mr. Huguely as "wrestling," the two of them were to fall or roll off of the bed together, with Ms. Love landing onto her right head/face on the floor, and Mr. Huguely landing on top of her head.

In summary, the evidence regarding the incident on 5/2/2010 and the resultant head injuries to Ms. Love are highly consistent with a brief interaction between her and Mr. Huguely that resulted in an apparently moderate degree of externally visible injuries, which at first glance did not appear to be likely fatal or to have caused serious bodily harm. Ms. Love was more likely unconscious but alive when Mr. Huguely left the apartment, and only succumbed to her injuries later, as evidenced by development of swelling and bleeding.

Conclusion

All opinions are expressed with reasonable medical certainty. I reserve the right to amend any statements or opinions if presented with additional significant information, as well as the right to rebut opinions expressed within my areas of expertise.

Yours truly,
Arden Forensics, PC



By: Jonathan L. Arden, MD
President