Arden Forensics

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Ms. Angel King 188 Lawn Ave. St. Augustine, FL 32084

Re: Investigation of the Death of Natasha Boykin

Dear Ms. King:

You have asked me to investigate the death of your daughter, Natasha Boykin, particularly regarding whether the evidence supports the conclusion that her death was suicidal. This letter summarizes the findings and conclusions of my investigation. I shall address issues concerning the autopsy, the scene examination and other pertinent forensic evidence that relate to the determination of the manner of death.

I have practiced forensic pathology for more than twenty five 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 was certified in both anatomic and forensic pathology by the American Board of Pathology in 1985. I am currently licensed to practice medicine in five states. For most of my career I was 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.

To conduct my independent investigation of this death, I have reviewed the following materials:

- Documents from the District 4 Office of the Medical Examiner, Jacksonville, FL, including reports
 of the Death Scene Investigation and the Follow-Up Investigation, Examination Report (i.e.,
 autopsy report), toxicology report and correspondence of 7/2/2010;
- Autopsy photographs from the medical examiner (on disc);
- Reports and documents from the Jacksonville Beach Police Department;
- Crime scene photographs and video from the Jacksonville Beach Police Department (on discs, with some also provided as color prints), including photographs of evidence and of Willis Casey White

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

I shall begin with an assessment of features from the death scene. It is apparent from the scene photographs that Ms. Boykin's body had been moved prior to the arrival of the police. Blood staining near the body (on the carpet and on an item of clothing) do not match her position or location. The side of the bottom mattress cover has a hole in it identified as the continuation of the path of the bullet after exiting her back, but neither the cloth cover on that mattress nor the adjacent wood bed frame have any blood or tissue on them transferred from the exit wound. Further, the photographs show blood deposition elsewhere in the house, including a blood smear on the door jamb of the bathroom, indicating that someone was moving about the house spreading blood. Obviously, Ms. Boykin herself was not moving

about the house after being shot through the heart, as she would only have a very brief time of consciousness or life following the gunshot wound. Mr. White could have spread blood around the home, especially if he had touched Ms. Boykin. In the police photographs, Mr. White's hands appear to be clean. This raises questions about whether he was the source of the blood in the home, or whether he had already washed his hands before the police arrived. Regardless, the physical evidence indicates that her body had been moved, that there was activity of another party in the home after the shooting, and that Mr. White may have cleaned himself (and potentially other parts of the death scene) of blood prior to the police documenting the scene.

The autopsy report omitted several important findings that were demonstrated in the photographs. Subsequently, these features were not incorporated into the conclusions reached by the medical examiner. First, one of the basic features of a contact or near-contact range gunshot wound is the deposition of soot in and around the entrance defect of the skin and/or the clothing; its presence or absence must be documented specifically. This autopsy report failed to mention soot deposition, even though it is obviously present in the photographs and is described (but not diagnosed) in the microscopic examination. This entrance wound also had a considerable spread of stippling with the abundant soot deposition, which in my opinion indicates a loose-contact wound. Proper forensic autopsy practice also includes examination and description of the clothing (when present) to correlate clothing damage with penetrating injuries, but the clothing was only listed in the report, without any description of bullet defects, gunshot residue deposition or blood staining. The photographs show that the front of her shirt has multiple defects related to the entrance gunshot wound, which indicates that the shirt was bunched up into folds when the bullet passed through it. The bunched-up clothing at the entrance site is another factor in explaining why this wound is best interpreted as having been at loose-contact range. The autopsy report does not indicate that the clothing was examined for the presence of gunpowder particles or soot deposition, and I am not aware of any gunshot residue testing performed on the shirt by a crime laboratory. Interestingly, when people inflict suicidal penetrating injuries they frequently move the clothing aside rather than shoot or stab themselves through it, although the fatal gunshot wound in this case was through the shirt. Another aspect of the clothing examination as a part of a thorough forensic autopsy is the relationship of the exit gunshot wound on the back with the bra. The photographs clearly show that the imprint of the bra in the skin of the back, particularly the area of the clasp, overlies the exit wound. If the bra had been in this position when the bullet exited, the bullet would have gone through that portion of the bra, leaving a hole in it, but there is no hole in the bra corresponding to the exit wound. Therefore, the back of the bra could not have been in that position when the gunshot wound occurred. However, there is evidence from the autopsy that suggests that the bra was in place when she was shot: the two abrasions on the inner aspects of the breasts. These abrasions are part of the complex of injuries at the entrance wound site, but are not an expected finding or the direct result of the gunshot wound itself. No explanation of these abrasions was offered in the autopsy report. In my opinion, they appear to correspond to the underwires of the bra. In addition, the exit gunshot wound has slight abrasion of its margin, and has a more "punched-out" configuration rather than being a laceration (skin tear); these features are atypical for exit wounds, and indicate that this is what is called a shored exit wound. Shoring of exit wounds occurs when there is pressure on the skin surface at the point of bullet exit, which can be caused by a surface (e.g., wall, floor or object) or very tight clothing. The only clothing article that might cause shoring was the bra, but the bra did not cause the pressure, since it had no corresponding defect, as discussed above. This feature of her gunshot wound has not been addressed or explained by the medical examiner.

Other findings demonstrated in the scene and autopsy photographs were also not described in the autopsy report, and remain unexplained. The photographs show a bruise on her upper-right forehead, which is not described in the autopsy report or listed in the diagnoses. A short blood trail is on the back of her right hand, and there is a small blood stain on the palm of that hand at the base of the thumb, which are also not mentioned in the report.

Both Ms. Boykin and Mr. White have similar patterns of tiny, dark marks on various parts of their bodies. Mr. White has many of these on his forehead and a few on the backs of several of his left fingers. Ms. Boykin has a few of them on the backs of her right fingers, and on the front of her neck (where some are more pink than dark). Although these are seen in various photographs, no explanation for them is offered

either by the medical examiner or the police, and they are not described in the autopsy report. These cannot be definitively identified from the photographs alone, and further testing or examination to characterize their features was not done either by the police or medical examiner. These very fine, generally brown dots on the skin are most likely one of two things: either high-velocity blood spatter or stippling from gunpowder residue. High-velocity spatter is seen on items or surfaces that are in very close proximity to an entrance quishot wound. Stippling is formed by particles of unburned or partially burned gunpowder emitted from the muzzle of a gun that embed themselves just beneath the skin surface. These also indicate proximity to the muzzle of a gun, generally within two feet or less. I do not see any evidence of vital reaction by the body to the spots on Mr. White's forehead (which would be likely if these were stippling), although some of the pinker marks on Ms. Boykin's neck look more like stippling than blood spatters. In any case, both Mr. White and the decedent have evidence that is highly suggestive that they were in close proximity to the muzzle of a gun and/or an entrance gunshot wound. Blood spatters can be washed away, but stippling does not wipe or wash away, since the particles are embedded within the skin. Making such a test or observation would have clarified this important finding, but apparently was not done. Mr. White also has no such deposition elsewhere on his face, which raises the question of whether he wiped off his face, but not his forehead, altering the pattern. (In addition, Mr. White showed deception on his voice stress analysis when asked if he was present when Natasha was shot.)

The pattern of these marks on Ms. Boykin is also telling. If the marks on the neck were stippling, they could have come from cylinder gap, which is gunpowder that escapes from the chamber through the gap with the cylinders of a revolver. Her right fingers would be facing the general direction of the entrance wound if she were gripping the gun in the standard fashion while shooting herself, which might expose them to high-speed blood spatter from the entrance wound. But, given that she was a small woman, if she had shot herself in the chest, she likely would have held the gun backwards and used her thumb on the trigger. If that were true, then her right fingers would not be exposed to the entrance wound for blood spatter. In either case, her right fingers would not have been oriented in a manner that would expose them to stippling if she were holding the gun and shooting herself.

Regarding forensic evidence on or in the gun, the photographs clearly demonstrate a fingerprint on the gun. This should have been preserved and submitted for comparison and identification. The gun should also have been examined for evidence of "blowback" of blood or tissue on or into the muzzle, which would indicate that that gun had been fired at contact range, and would permit DNA comparison to establish that the biological material belonged to Ms. Boykin. I see no evidence of blowback on the external surfaces of the gun in the photographs; this may indicate that this was not the gun used to shoot Ms. Boykin, or that the weapon had been wiped clean before the police arrived. A ballistics comparison between that gun and the recovered projectile should have been made, again to establish that that particular weapon was used to shoot Ms. Boykin.

I shall briefly mention several other issues regarding forensic evidence derived from the investigation of Ms. Boykin's death. First, my understanding is that Mr. White described finding Ms. Boykin with the gun in her hand, with the barrel facing up. If this is a fair characterization of his statement, it is highly unlikely to be accurate. After death, people lose muscle tone and become limp. She would not be able to grasp the gun and support it with the barrel facing up; a description of a gun in the hand of a decedent raises a strong concern for a staged death scene. The medical examiner investigation report stated that gunshot residue testing was positive on both Mr. White and Ms. Boykin, and that his positive test was caused by him moving the gun upon finding her dead. Positive gunshot residue testing on the hands is nonspecific. While it could have come from him moving the gun, it is also consistent with him firing the gun or being in proximity to the gun when discharged, so these alternative explanations should not be disregarded. Finally, given the emphasis on the exchange of text messages between cell phones, it may be possible to establish to some degree the locations of those phones by the telephone company records that show which cell towers the phones were contacting.

Re: Natasha Boykin, Report of Dr. Arden, 11/17/2010

Conclusions

The determination of manner of death (in this case, distinguishing suicide from homicide) must be based on a consideration of all of the evidence: physical, forensic and investigational. The near-contact range gunshot wound that caused the death of Natasha Boykin is physically consistent with being either suicidal or homicidal, if considered in isolation. However, the totality of the evidence is not consistent with the official conclusion that the death of Natasha Boykin was a suicide. As discussed above, the evidence indicates that Ms. Boykin's body was moved prior to the crime scene investigation, and that someone spread blood about the house after the shooting, all of which is alteration of the death scene prior to investigation. The description of her holding the gun with the barrel pointing up is inappropriate if she had shot herself and then collapsed; if true, this most likely represents a staged death scene. Mr. White has physical evidence on his body that places him in close proximity to the gun and/or the entrance wound at the time the gunshot wound occurred (and has stress indicated when asked whether he was present when Natasha was shot); the evidence suggests that he may have cleaned his hands and face prior to the arrival of the police, as well. The deposition of similar material on Ms. Boykin's right hand is inconsistent with the most likely way in which she would have held the gun if this were a self-inflicted wound. The gunshot wound entered through the bunched-up shirt, not directly into the skin as is more common in suicides. No blowback was documented on or in the gun. The autopsy report had several significant omissions, including the shoring of the exit wound. These multiple unresolved issues apparently were not incorporated into the conclusions of the investigations.

In light of these inconsistencies, none of which was reconciled by the official investigations into the death of Natasha Boykin, it is my opinion that significant unanswered concerns remain as to whether she was shot and killed by another person. Therefore, I would leave this suspicious death open for further investigation, or certify it as an undetermined manner of death to indicate that the conclusions of homicide and suicide cannot be reasonably distinguished based on the currently available evidence.

Yours truly, Arden Forensics, PC

By: Jonathan L. Arden, MD

President