OFFICE OF THE
MEDICAL EXAMINER
2100 JEFFERSON STREET
JACKSONVILLE, FLORIDA 32206

EXAMINATION REPORT

NAME OF DECEASED CUNNINGHAM, Calesha M.E. NO.: 92-1320

DATE OF DEATH December 10, 1992 Duval COUNTY
(Month) (Day) (Year) (Where death occurred)

EXTERNAL EXAMINATION

The body is that of a clothed (hospital gown and diaper) two year old, black female weighing 26 pounds (12 kg.) and measuring 36 inches (91 kg.) tall. Evidence of recent therapy is present which will be described below. Rigor mortis is present and equally extend in all joints. Postmortem lividity is present in the dependent portions of body (back). The scalp hair is black. The frontoparietal area is shaved and shows two sutured incisions (for insertions of intracranial pressure monitor catheter). Multiple injuries are present in the head which will be described below. The irides are brown and the pupils are round and in mid position. The conjunctive are pale. The irides are brown and the pupils are round and in mid position. The conjunctivae are pale. The ears and the external auditory canals are unremarkable. The nasal bones are intact. A nasogastric tube is noted in the left nostril. Dentition is natural. An endotracheal tube is present in the oral cavity. There are circular scars in the forehead and chin measuring from 6 to 7 mm in diameter. There are also healed linear scars on both inner canthus of lower eyelids. A healing wound is noted in the outer canthus of right eye and a healed scar beneath it. Another scar is noted in the left side of the nose. The neck and the anterior chest wall are essentially unremarkble. Multiple injuries are present in the back and buttocks which will be described. Numerous needle puncture marks are present in the antecubital fossae and inguinal areas, bilaterally. A foley catheter is in situ. Multiple circular scars are noted in upper and lower extremities as noted. A cylindrical scar is present in the plantar surface of the right foot measuring 2.5 x .6 cm. in dimensions.

In situ examination of the vagina and anus show no evidence of injury. The hymen is intact.

FS-

CHILD ASSESSMENT
SEXUAL ASSAULT CENTER
CHILDREN'S CRISIS CENTER, INC.

Methods:	NO	YES
Position		
Supine	( )	( )
Knee/Chest	( )	( )
Lat Recumbent	( )	( )
Toluidine Blue	( )	( )
Wood's Lamp	( )	( )
Culposcope	( )	( )

	NO	YES
Vaginal		
Digital	( )	( )
Speculum	( )	( )
Anoscopic	( )	( )
Proctoscopic	( )	( )
P[illegible]n	( )	( )

Other: _____ _____

Diagrams:

Hymen shows ecchymoses bilaterally c bruises Anteriorly external to hymen but contiguous to it
Hymen is intact
c/w Attempted penetration

Hymen:

annular	( )
redundant	( )
crescentic	( )
estrogenized	( )
other	( )

12/9/92
DATE

EXAMINER

Whitworth?

A Again, it would be a direct blow to the area.

Q Okay. I'd now like to show you, sir, what has been marked State's Exhibit 6 and ask you to explain what that depicts.

A This is a photograph of the child's vaginal examine and the area -- the area of hemorrhages right in that position, and another area of hemorrhage right over here in this position, (indicating), and this somewhat red area up here above.

But the injuries that I was referring to is this injury right here, and this injury right here, (indicating.)

Q And, Dr. Whitworth, can you date those injuries?

A Those injuries could be dated to the time less than 12 to 18 hours prior to this examination.

Q What type of impact would cause the injuries that are contained in that photograph?

A Well, it really wouldn't be impact, it would be the -- it would be the presence of an object pressing against or scraping against that area, the direct presence of an object.

Q Is that a penetration injury?

A That is a penetration injury.

Q Dr. Whitworth, would that be consistent with

have been caused by a direct blow?

A Yes.

Q With regard to the vaginal injury you've testified concerning, laypersons have differing perceptions of the female genitalia. Could you explain to the jury where the area is, specifically, that you demonstrated in that photograph?

A The area where the injuries were is called the hymen. The hymen is usually about a half an inch inside the opening of the vaginal canal so that the space that has to be traversed before you get to the hymen is about a half an inch.

Q So the vagina itself would have to be penetrated to get that far up?

A That's correct, yes.

Q Would that vaginal injury have bled, Dr. Whitworth?

A Undoubtedly would have bled at sometime in the course.

Q Is there any way to tell how much it would have bled?

A No, it could have bled a very small amount, or could have bled a very large amount. And the length of time it would have bled is difficult to estimate, also. It's extremely variable, but I think it's reasonable to say

A That's correct.

Q Have you ever stated that an abrasion could have been 72 hours?

A No, I have not.

Q Back to that deposition on page 9, line 11, I asked you.

"Question: When you say fresh as far as the hymen's concerned as you examined -- I'm sorry, wrong page.

All right. I'm sorry. I have to -- I'm sorry, Your Honor, I'm trying to get fair.

"Fresh, as far as the hymen is concerned, which you examined, what dictated that, say, as opposed to being some older wound?

"Answer: In the color of the bruise and the expected resolution of the bruise in the area you could pretty much estimate the wound is present if it appears like this, which referring to the hymen it's occurring within 72 hours prior to the time we had seen the bruise.

"That would be based on that -- that would be for 72 hours before you saw it on the 9th?

"Certainly would be, would be within 72 hours."

Q Within 72 hours prior to the time you had seen the bruise, and you saw it the 9th. It was 72 hours before

that? That's three days.

A Prior to the time I saw the wound, that's correct. 72 hours applies to healing of lacerations and lesions, it doesn't apply directly to bruises.

Q Those 15,000 cases and those times that you testify in court you usually testify for the prosecution, don't you?

A About 80 percent of the time.

Q Now, you also say based on your examining the child's eyes that bilateral -- that she had bilateral retinal hemorrhages; is that correct?

A That's correct.

Q Can a child develop that injury by shaking -- being shook?

A That's possible, yes.

Q And it also can develop, those type of injuries, by being dropped, can't they?

A If they're dropped from a great enough height, yes.

Q Now, you keep -- I think it's your testimony you keep saying a three-story building.

A That's correct.

Q Is that always the case, it has to be a three-story building?

A It's a good indication of the degree, or the

from irritation such a sunburn. And if you push on it, you can actually cause it to blemish. And postmortem, if blood is within vessels it will settle. And this is a phenomenon well-known to forensic pathologist. Because it is very common for them to take a body that has bruises, do an autopsy, and then put it in a refrigerator, wait 24 hours and come back and look some more. And the reason they do that is because if there is blood outside vessels, it will not migrate; where as blood that is inside vessels will drain somewhere. And it will keep the actual bruises or hemorrhage outside vessels much more prominent.

Q So, is what you're saying that once the child had died and was laying, I guess, overnight that it would be possible for I guess gravity to pull the blood down or it migrate out of the tissue?

A Yes. That is called hypostasis. And what it does is it accumulates from the back side of the body. If you turn the body up and look at the back side, it is red usually.

Q And what would happen if blood tried to drain out a bruised area; would it be able to do that?

A No, it will not. That's why it becomes so much more prominent when you do an autopsy and then put the body back in and let everything drain and so on. And

issue is whether a significant trauma to this child was observable one day, and then the next day at autopsy -- and the next day dies. And its autopsy a day afterwards, they find absolutely nothing. And both the original observer saw nothing, and the forensic pathology that did the autopsy saw nothing. And there was not any laceration or there was not any contusion, just redness. I looked at the pictures, and there is definitely redness extending from the area of the urethral orifice where there is a urinary catheter out latterly into the vestibule. And it does not involve the labia majora. There is no injury to the labia minora. There is this tenuous structure there that has a very small opening behind that which is undisturbed. Everyone agrees to that. I just can not see how where the penis or finger or you know a fist or whatever is going to damage in such a localized area and not anywhere else, and that it is going to completely disappear within 24 hours. That is just contrary to people's normal expectations, it is contrary to general medical understanding, and it is contrary to the nature of healing.

Now, I do have a suggestion. And that is that redness is not necessarily indicative of hemorrhage. It may simply be an enlarged capillary there full of blood

A Well, a hypothetical is really difficult to answer because healing may not happen at all if there is no significant injury. And the more extensive the injury, the more healing is required. But the general business of examining children for potential sexual abuse is to exam them as soon as possible and within 72 hours on the assumption that any of the changes will be present still in 72 hours.

Q Do you have an opinion as to what type of mechanism or again I guess irritant that could cause something to appear the way it was photographed or would have appeared to Dr. Whitworth an explanation of how something could look that way other than a sexual battery; are there other --

A Well, if it was a sexual battery, I would expect other injuries than just simply redness. The most likely thing is irritation of some sort. Now, there is a urethral catheter placed there. And I understand that the urethral catheter is placed without any sort of lubricant which is contrary to all of the technique I have ever learned. But on the other hand, I have not placed a catheter in years. I don't know what they are doing now. Maybe the catheter come prelubricated or something. I just do not know. This was back in 1992 by the way, so we are not talking about

something that just happened. But other things can do that. Bubble bath can do it. Irritation from urine or feces can do it. Aggressive cleaning with toilet paper can do it. A kid's finger I suppose can do it. But I can not imagine a fist, a penis, or an adult male finger producing only a little redness and nothing else.

Q Now, you have had a chance to look at the photographs that were sent to you. And I know that the ones that we're talking about if I can describe it for you.

A Okay. Let me get my collection of photographs. Just a moment.

Q Well, on our end, it is called Exhibit for the State, but on your end, it would be the one that has a finger covering up a urethral tube. And then can see a what looks like some type of a tube going into the anal area.

A Okay. Let me see if I can find that. Okay. There is what looks like a thumb and a finger. And thumb presses the urethral catheter to the left. And the finger pulls the labia majora. And as a result, the labia minora to the left. And above that, you will see the clitoris. And there is some clotted blood down on the buttocks, on the left buttock.

Q Now, this would be the vaginal area of a 26

TABLE Location of Hymenal Lacerations: Comparison of Prepubertal and Pubertal Girls

Location	Prepubertal		Pubertal	
	n	%	*n*	%
Anterior	2	5	12	15
Lateral	3	8	18	23
Posterior*	35	88	50	61
Total	40	100	80	100

* Significant at $P < .01$

the actual time of resolution is unknown because she did not return for any additional reevaluations.

Seven (5%) adolescents had blood blisters on their hymenal membranes (Table 1). These lesions were detected for the first time in 5 patients during the second and third postinjury weeks. One adolescent still had a blood blister on day 34. There were no additional examinations of this group of adolescents.

Erythema

The redness of the tissues that is created by capillary congestion (erythema) constitutes a nonspecific finding. Therefore, erythema is not included as a variable in "Results" because of its uncertain clinical significance.

Hematomas

What initially seemed to be a well-defined, localized collection of blood (hematoma) dramatically changed during a relatively short period as the blood disseminated into the surrounding tissues (Table 1). At that point, they were considered to be submucosal hemorrhages.

Petechiae

Sixty-nine (60%) of the 113 prepubertal girls had a pinpoint, nonraised, perfectly round, purplish red spot (petechia) on their hymenal membrane at the time of their initial examination (Table 1). No petechiae were detected beyond 48 hours in any of the prepubertal girls. Sixty-five (50%) of the 126 adolescents had petechiae on their hymens at the time of their initial evaluation (Table 1). No petechiae were identified in any of these pubertal girls after 72 hours.

Submucosal Hemorrhages

Submucosal hemorrhages were discovered in 51 (45%) of the 113 prepubertal girls and in 67 (53%) of the 126 pubertal adolescents. Evidence of this bleeding into the areolar tissue beneath the mucosal membrane was found primarily in the posterior quadrants of the hymen in both age groups. The depth of discoloration of a submucosal hemorrhage and its relative size in relationship to the surrounding tissue was used in classifying them as mild, moderate, or marked. Each lesion was individually tracked, and the disappearance day was recorded. The more severe hemorrhages gradually evolved into either a moderate or mild form before completely disappearing (Table 1).

Hymenal Lacerations

The 40 hymenal lacerations that were observed in the 113 prepubertal girls were reevaluated a total of 60 times. The 80 hymenal lacerations that were identified in the 126 pubertal adolescents were reexamined a total of 93 times. The locations of these lacerations were recorded in relationship to the face of a clock as though the patient were in a supine position. As the hymenal lacerations healed, several changes took place. These included variations in both the depth and the configuration of the laceration.

The location of the hymenal lacerations varied somewhat by age (Table 2). Both groups of patients had significantly more ($P < .01$) lacerations on the posterior half of their hymenal rim than on the anterior portion of this membrane. Of the posterior rim lacerations, 75% of the prepubertal girls' lacerations were in or close to the midline, whereas only 29% of the adolescents' lacerations were found at this same area ($P < .001$). Conversely, the older patients had a greater percentage of lacerations along the lateral hymenal rim at the 3 o'clock and 9 o'clock locations ($P < .05$) than the younger girls.

Depth of the Healing Hymenal Lacerations

Prepubertal Girls

The depth of the hymenal lacerations in the prepubertal girls ranged from superficial tears to transections that extended into the fossa navicularis and beyond

TABLE Depth of 40 Hymenal Lacerations on the Final Follow-up: Prepubertal Girls

Classification	Contusion, *n* (%)	Superficial, *n* (%)	Intermediate, *n* (%)	Deep, *n* (%)	Transection, *n* (%)	Transection With an Extension, *n* (%)	Undetected or Healed, *n* (%)
2. Superficial (4/5 F/U)	1 (20)	1 (20)	1 (20)				
3. Intermediate (3/6 F/U)		2 (33)	1 (17)		1 (17)		2 (40)
4. Deep (12/21 F/U)		2 (10)	3 (14)	13 (61)	2 (10)	1 (5)	2 (3.5)
5. Transection (4/7 F/U)			1 (14)	2 (29)	3 (43)		
6. Transection with an extension (17/31 F/U)				7 (23)	14 (45)	9 (29)	1 (14) 1 (3)

F/U indicates number of acute lacerations per number of follow-up examinations

injury and the status of each hymenal abrasion, contusion, or laceration were recorded. The 113 prepubertal girls had 201 hymenal abrasions and contusions. The soonest "reevaluation" of a girl occurred within 24 hours of her initial examination. The longest a prepubertal girl was followed was 2.5 years. The average follow-up period was 9.9 months. The 126 adolescents were found to have 230 hymenal abrasions and contusions. The period for a reevaluation after an assault ranged from 1 day to 3.7 months. The average follow-up period was 61 days.

Table 1 is a compilation of the period required for a hymenal abrasion or contusion to resolve. The healing process was recorded as follows:

- "Last detected" identifies the day in which a finding was last detected in patients with a particular injury.
- "Earliest disappearance" identifies the day in which a particular finding was no longer identified in any one patient.
- "Gone" identifies the first examination day in which a finding was no longer seen in any of the patients.
- "Never seen" represents a finding that was never seen in any of the patients during a follow-up examination. Unfortunately, in this case there was no way of knowing when such an injury had actually disappeared.

For example, of the 8 (7%) prepubertal girls with a hymenal abrasion (for which there were a total of 13 follow-up examinations), the only time this finding was seen on a follow-up examination in any of the patients was on the day following the initial evaluation (day 1) (see "Last Detected" column). No abrasions were detected in any of the other follow-up examinations, beginning with 2 girls who were reexamined on day 3 (see "Earliest Disappearance" column). Day 3 was also the day after which no other hymenal abrasions were detected (see "Gone" column).

Hematoma is used as an example of the term "never seen" in Table 1. Five prepubertal girls had what initially appeared to be a hymenal "hematoma." The soonest any of these girls were reexamined was 2 days after their injury (day 2). At that time, as well as on all of the other follow-up examinations, the well-defined, localized collection of blood (hematoma) on their hymens had been replaced by diffuse submucosal hemorrhages. Therefore, a hematoma was "never seen" after the initial examination.

Hymenal Abrasions

See the previous example for the hymenal abrasions that were detected in the prepubertal girls. Only 2 (1%) adolescents had hymenal abrasions (Table 1). Their first reevaluation occurred on day 4, and, in both cases, the abrasions had disappeared, leaving only a localized area of erythema.

Hymenal Contusions

Blood Blisters

The thin vesicles of blood (blood blisters) on the surface of the hymen were associated with the more severely injured patients. Once formed, this small, blood-filled vesicle seemed to shrink in size before disappearing completely.

Only 1 prepubertal girl was discovered to have a hymenal blood blister (Table 1). Although the blood blister was present on the seventh day after the injury,

TABLE 1 Healing of Hymenal Abrasions and Contusions: Prepubertal and Pubertal Girls

Type of Injury	Group	Severity	Last Detected[a]	Earliest Disappearance[b]	Gone[c]	Never Seen[d]
Abrasions	Pre: 8 (7%), F/U: 13		1 d (1/1)	3 d (2/2)	3–22 d (10/10)	
	Pub: 2 (1%), F/U: 4		4 d (2/2)	11 d (2/2)	11 d (2/2)	
Blood blister	Pre: 1 (1%), F/U: 3		7 d (1/1)	30 d (1/1)	Unknown (1/1)	
	Pub: 7 (5%), F/U: 11		54 d (1/5)	9 d (1/5)	Unknown (1/1)	
Hematoma	Pre: 5 (4%), F/U: 5			1 d (2/2)		X (5/5)
	Pub: 13 (10%), F/U: 19		1 d (1/1)	3 d (5/5)	3–20 d (13/13)	
Petechiae	Pre: 69 (60%), F/U: 97		2 d (1/4)	1 d (2/3)	2–211 d (90/90)	
	Pub: 65 (50%), F/U: 80		3 d (1/7)	2 d (1/1)	3–109 d (22/22)	
Submucosal hemorrhages	Pre: 51 (45%), 118 submucosal hemorrhages	Mild: 8, F/U: 13	2 d (3/3)	3 d (1/1)	3–44 d (10/10)	
		Mod: 53, F/U: 70	8 d (1/34)	5 d (2/8)	10–304 d (28/28)	
		Mark: 57, F/U: 94	15 d (1/54)	5 d (3/18)	16–730 d (22/22)	
	Pub: 67 (53%), 137 submucosal hemorrhages	Mild: 16, F/U: 22	7 d (1/8)	4 d (4/4)	8–29 d (10/10)	
		Mod: 71, F/U: 80	12 d (2/48)	3 d (1/5)	14–56 d (37/37)	
		Mark: 50, F/U: 66	11 d (1/23)	3 d (1/5)	12–97 d (38/38)	

Values in parentheses represent the number of patients with a particular finding on any given day. Pre indicates prepubertal girls (nonestrogenized hymen); Pub, pubertal adolescents (estrogenized hymen); F/U, follow-up examinations; Mod, moderated; Mark, marked.

[a] The day in which a finding was last seen during follow-up in all patients with this finding.

[b] The first follow-up day in which a finding was not found in at least 1 patient with this finding.

[c] The first follow-up day in which a finding is never again detected in any of the patients with this finding.

[d] A finding is never seen in any follow-up of all of the patients with this finding.

In addition to the cause of death testimony, another flawed aspect of the medical evidence was that involving an allegation of sexual battery. At trial, Dr. J.M. Whitworth, the doctor who saw C.C. when she first arrived at the hospital, and Dr. Bonifacio Floro, the medical examiner, testified at trial on behalf of the State and concluded that C.C. had been sexually assaulted. Dr. Whitworth testified that there were injuries to C.C.'s genital area when she first arrived at the hospital on December 9, 1992, and Dr. Floro testified that the injuries would have healed by the time she died on December 10, 1992, which is why they were no longer visible when he conducted the autopsy. Dr. Alexander, the State's child abuse expert at the post-conviction hearing in 2008, concurred with these opinions.

There is no medical evidence that a sexual assault occurred. The autopsy photos do not show **any** injury to C.C.'s genital area. The suggestion that these injuries would have healed by the time of C.C.'s death contradict the teachings of basic and medical science and pathology. I agree with Dr. Edward Willey's testimony at the post-conviction evidentiary hearing that any redness appearing in C.C.'s genital area is consistent with poor hygiene. Criteria for the diagnosis of sexual abuse are well recognized in the medical literature and there are no findings in this case that would allow such a diagnosis.

The State's doctors claimed that the child had injuries to the genitalia that were conclusively diagnostic for sexual abuse. Dr. Floro's explanation for absence of those findings at autopsy is the wounds had healed. Forensic analysis of the time course of wounds is part of basic pathology taught to all medical students and is a particular area of focus for forensic pathologists. This process is commonly referred to as vital reaction and is understood and studied under the category of inflammation.

that was present did cause the brain to expand within the cranial cavity, which compressed it globally and symmetrically, which is not the direct result of the subdural hemorrhage, *per se*. The brain swelling is not a direct impact injury to the brain, and no direct brain injuries (e.g., contusions) were identified at autopsy. Similarly, I am unconvinced by the diagnosis of brain herniation (the process of a swollen or displaced brain flowing into existing anatomical orifices or over internal barriers, causing damage to the brain tissue). The described grooving of the cerebellar tonsils is expected with brain swelling, but in the absence of damage to the tissue, herniation has not been established.

The lack of direct or intrinsic brain injury is relevant to the concept that the opinion rendered for the cause of death was not adequately supported by evidence. The more likely lethal mechanism was the brain swelling, which can be caused not only by physical trauma, but also in response to damage from inadequate oxygen and/or blood supply. Hypoxic damage (i.e., caused by insufficient oxygen) can be caused by anything that interferes with the supply of oxygen, including airway obstruction from choking on food. Just because she had a few scalp bruises, one cannot assume that she incurred lethal head trauma. (And of course, no microscopic examination was done on any of the head injuries, such as the scalp bruises, to demonstrate conclusively that they were actually contemporaneous with her clinical presentation. The only injury so examined was demonstrated conclusively not to be contemporaneous, as discussed below.) Dr. Floro's testimony regarding the causation and effects of head injuries was inaccurate and frankly misleading. He testified at trial (Transcript, at page 841) that "[i]f you hit the head hard enough...to lacerate the bridging veins, then you will kill the child." That statement is false. Torn bridging veins are the source of subdural hemorrhage. Therefore, Dr. Floro testified under oath that any impact to the head with enough force to tear bridging veins (i.e., to cause a subdural hemorrhage) will be lethal. That statement contradicts the very common experience that many people incur subdural hemorrhages that are not lethal, especially small volume subdural hemorrhages, as was present in this child. Dr. Floro and Dr. Whitworth also testified that head injuries would render the child unconscious immediately, which is also misleading, as that is not always the case. Some head injuries do allow for a period of consciousness, referred to as a lucid interval, before collapse and unconsciousness ensue. That is especially worthy of consideration in this instance, where no intrinsic brain trauma was identified at autopsy.

Retinal hemorrhages were an important clinical finding in the diagnosis of child abuse, but the eyes were not examined internally at autopsy, as they should have been.

As mentioned above, the only injury subjected to microscopic examination was the buttock bruising. That examination revealed that the bruise had fibrosis, i.e., a healing scarring process, and lymphocytic inflammatory infiltrates, which constitute chronic inflammation. Therefore, that bruising was not recent at the time the child presented to the hospital, and thus was unrelated to whatever events precipitated her collapse and her death. However, Dr. Floro opined that the buttock bruising was fresh, contrary to his own evidence. Dr. Floro also offered opinions in testimony about the ages of the various bruises based on visual appearances, but such estimates are unreliable, as has been demonstrated in the medical literature subsequently since this autopsy and the trial.

Dr. Floro testified that finding no hymenal injuries was not unexpected two days after they had been seen during the examination in the hospital. First, he has miscalculated and misrepresented the applicable interval, since the child died one day after having been examined, so the only interval available for healing was one day, not two. (The autopsy was performed two days after the examination, but during the second day after death until the

autopsy, the child was not alive, so no healing would occur.) Injuries to the hymen, especially non-disrupting injuries (as were found in this child) can heal quickly, but I would not expect all signs of hemorrhage to disappear in one day.

Dr. Floro also testified that he found no french fries in the stomach at autopsy, at the least implying that she was not eating french fries when she collapsed. This conclusion ignores the fact that there had been the passage of a day of life in which the food could have been broken down and/or passed into the intestines, and that he documented in the autopsy that a nasogastric tube had been inserted, which would allow for suctioning of material from the stomach prior to death. Therefore, the condition of her stomach and its contents at autopsy are not dispositive of the issue of whether she had been eating french fries shortly before she collapsed.

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. I note that the change of accepted medical knowledge cited above regarding the unreliability of estimating ages of bruises by visual examination occurred subsequent to the performance of this autopsy and rendering of trial testimony in this matter. However, the remaining medical concepts and knowledge that form the bases of my other opinions was extant and freely available at the time this autopsy and trial testimony occurred.

Yours truly,
Arden Forensics, PC

By: Jonathan L. Arden, MD, F-NAME
President

Child Protective Team Case Summary Letter:

Dr. Whitworth Evaluation - There is definite evidence that is consistent with attempts to penetrate the patient sexually, although no evidence of penetration was defined.

Summary

The review did not find any evidence of a sexual act of any sort at or near the time of the respiratory arrest and demise. The "flame shaped hemorrhages" that Dr. Alexander said were at 3 and 9 o'clock and were evidence of sexual trauma were, first of all, not bleeding (which is the definition of hemorrhage) and otherwise were not defined by either Dr. Whitworth or Dr. Alexander other than as evidence of sexual abuse. If such marks were present, they were most likely digital pressure marks from the nurse holding labia open to facilitate the placing of the Foley catheter in this little girl. I agree that these pressure marks if present would be gone in 24 hours and would not be found at autopsy.

As discussed above, the State's experts seem to equate bleeding either on or from the genitals as evidence of a sexual act. However, the only injuries seen in my review are attributable to medical intervention, specifically, the insertion of a foley catheter (unlubricated) in a comatose child who was not expected to survive. I did not find any non-iatrogenic source of bleeding at or near the genital area and there was no genital injury seen or described either pre or postmortem.

Theodore N. Hariton M.D. FACOG

Theodore N. Hariton, M.D., F.A.C.O.G.

Theodore N. Hariton MD FACOG: (520) 818-3833
tnh@haritonmd.com Cell: (818) 448- 5378

Thus Caleasha was the victim of lethal shaken-impact syndrome; and was acutely sexually abused.

Please let me know if I can be of additional assistance.

Sincerely,

Randell Alexander MD PhD
Professor of Pediatrics, and
Chief, Division of Child Protection and Forensic Pediatrics
Interim Chief, Division of Developmental Pediatrics
University of Florida – Jacksonville

the time he got there anyway even though there were multiple observers saying they had seen some stuff. He did not see it at that time. He did see, however, what he said is some flame-shaped hemorrhage. Flame-shape is kind of child abuse pediatrician code for really thin superficial. It is not a deep bruise like many of us get from our everyday activities or something like that. So, he saw flame-shape, and he saw that really on both sides of the hymen. The hymen is sort of like a doughnut if you will with an opening in the middle that goes into the vagina. And he was seeing some hemorrhage on both sides. And he described that as being at the three o'clock and actually it would be the nine o'clock position. So, if you had someone on their back and you are looking at this doughnut and the clock face 12. It's at the top, and six is at the bottom. That is how we talk about it in terms of clock figures as to what we are talking about. And so he saw that. He also saw that besides that superficial bruising, he saw some bruising that was a little more at the top and sort of around the clitoris which is a structure when someone is on their back, it is a little higher up above the hymen area above the urethra where you pee out of. It gets a little higher up.

Q Now, the hemorrhage -- hemorrhage and bruising

are they synonymous in medical terminology?

A Well, they would in this instance be. We talked about subdural hemorrhaging. I don't think we would ever call that bruising.

Q Right.

A Hemorrhaging is just blood. And if it is a big enough collection of blood, if it is not in the skin, but it is some place else, we would not probably call bruising. But although sometimes we know about a bruised liver or something like that, but bruising is sort of a kind of thinner sort of notion. So, they certainly overlap each other. In this case, I think we can say they are synonymous.

Q The location of the injury there in the inside of the genital area, the labial area, outside of the hymen; that correct?

A First you have the outer labia which is called the majora. And then you have the inter labia, manura. And we are inside of that. And the injuries we are talking about are outside of the vagina. So, the hymen is the entrance of the vagina. If you go deeper, then you are in the vagina. Anything in front of that is not vagina. So, that is the border if you will. And so he is talk about injury to the doughnut that is sort of at the entrance to the vagina. And then a little bit of

hemorrhage that is on the tissues that is just about that. All within the both sets of labia. And so we call that the genital area injury. So, we would not call it vaginal because vaginal is the deeper end part.

Q Would you describe these as a penetrating injury. Penetrating, that is penetration by some object being it with a penis or a finger or another object that would cause these types of injuries?

A Yes. These are interior structures. To get to the hymen, you have to get inside. You're still not inside of the vagina, but you are in between the labia. So, you are inside at least as far as that is concerned. But it takes a little more depth. And one thing is we rarely see an external injury to that area just because it is pretty well protected. And actually the vagina and the hymen are held there by ligaments. So, to a certain extent, they are a little bit moveable. So, again, a little bit harder to injure even if something somehow penetrates through the various plains and gets there. They can be injured, but it is a little harder.

Q Are these injuries consistent with any kind of accidental injuries described in journals as in fact from a saddle or some other type of external impact injury?

A No, not by set holes or saddles or any of those

injury in terms of severity? And I would just throw out categories of severe, moderate, superficial; how would you categorize that, doctor, in your experience?

A Well, most of our kids who are sexually abused do not have any genital findings at all. It turns out that you can have a lot of things done to you and nothing gets left for us to see. So, in that sense, we only see physical findings in about five to ten percent that are sexually abused. With that said, we certainly can see some pretty ugly tearing of tissues and things looking really bad which we did not have in this case. So, I would say it was statistically severe enough that we actually saw physical findings. But in this case, the injuries themselves were pretty superficial. I mean, this was about the least amount of injury you could get and have injuries. So, they count more than not having injuries than the vast majority of people not having injuries. So, I guess I would have to say sort of moderate at least in terms of what it means, but mild in the sense that the amount of bleeding here was pretty -- it just was not that much in the scheme of things. There was no rip of the hymen what we call a transection. There was no rip of any other issues here. There is no deep bruising that was described. There was none of the other things that we can see in some pretty

A I don't. What I see is they both said they did not see anything. That sounds to me like agreement.

Q Based on your complete review of the medical records together with the history that has been provided in this case, do you agree or disagree with Dr. Whitworth's medical evaluation in the case?

A I do not disagree.

Q And specifically concerning his opinions and conclusions regarding the genital injuries that you have described?

A No. They make sense to me. Very superficial injuries, the most superficial in some ways for having injuries and faded away. That can happen. They were not the kind of ones that I would expect to last for several days. But again, if I had a child on Friday, I've got to see them before Monday just because of the concern about things healing. This healed pretty fast in the scheme of things. Most of our injuries might last a couple of days, but then those are things too like transection sort of things which are quite different.

Q More severe injuries?

A More severe and different kind of healing things that go on, anything of a laceration, which I did not see here, that would probably take a little longer

clear photograph or something. But even if it was crystal clear, and even if I had one of these machines that sometimes we use to magnify to look at, I always look over the top and look at the child. Because you always look at the patient for one thing. We are in the machine do it all age. And second of all, the human eyeball is just better than any camera is as of yet, better resolution, better differentiations of colors and things like that. So, photographs can be good representations or fair representations of what went on, but the examiner always have an etch. Plus we take a three dimensional which the photograph doesn't have. So, there's various reasons why. A photograph is good, but the person that did it is even better.

Q Yes, sir. Dr. Alexander, based on your training and experience, do you agree or disagree that Dr. Whitworth's description of the hemorrhages and the bruising, and that they could have healed in his opinion by the time of the autopsy?

A Yes, I think they could have. I think that -- it makes sense to me that what he described as flame-shaped, which means superficial, they could go away. Had he described more extensive bruising or something, then I would have been more quandary to understand how you could have these different things.

A I think that was part of it.

Q Part of it. And based on your training and experience and your review of the medical records and the history provided, do you disagree with Dr. Willi's opinions and conclusions obviously?

A I do.

Q Do you understand that -- well, let me just ask. If Dr. Willi were not provided with the complete history, including police reports and crime scene photographs, do you have an opinion as to whether that would be an important history to omit considering?

A Yes. I think in this case the history actually is important. For instance, the bleeding history, that multiple people saw blood. And then you kind of have to say then that there was blood there. Because we were not there to see it. And when multiple observers seen blood, blood is one of those things you do not mistake very easily. Trained medical people, much less my mother, pretty good at that. So, again, if you do not have that history, or if you did have that history, it would probably change our notion about was blood present there before.

Q Now, Dr. Alexander, you are aware, are you not, that in support of Dr. Willi's opinions, he has provided six what he terms as authoritative treatises in

A Well, I would have to be there to take a look or not. Again, having red or even redder than this can be normal and it does not necessarily mean bruising.

Q So, you really can not tell?

A From that redness, no I can not tell if that is a bruise by me looking at the photograph.

Q So, the photograph is no help to you?

A I would not say that. I would say that it does not decide the question that your were asking which is what he said was an injury somewhat near the clitoris. We do not have a view of that.

Q Does it have a view of the three o'clock, nine o'clock thing that you are talking about?

A It does. Not in your photograph. Your photograph does not show it.

Q Okay.

A But in the other photograph, which would be state's exhibit 2 or E, I see both labels here, you see a little bit of redness at three and nine o'clock. If I were just to have this photograph and knew nothing I would say wow, is that something. And I would ask the question and say that looks unusual. But to be sure, I would want to talk to the person who did it or get a really good photograph to see this area. And of course, I do not have either options. I do have Dr. Whitworth's

report. That's what I have.

Q So, all we have is your interpretation of what you think his report mean?

A And something in the photograph that seems to correspond of what I think he is getting at, yeah.

Q What is he getting at?

A If you look at again this state's exhibit, if you look at three and nine, it looks like there are some areas there that probably relates to what Dr. Whitworth is talking about. So, it makes some sense. But I could not independently verify it from the photograph alone.

Q Okay. So, the redness that we are locking at that looks redder towards the tube is normal?

A I can not tell from this photograph. You would have to ask the person that did the exam.

Q Okay. Or have a better camera?

A Right, or a better picture at the end of the day, right.

Q Okay. Now, you talked about history, right?

A Right.

Q And the history you're talking about in this case for all intents an purposes begins -- your historical clock begins where, the morning of the ninth?

A Well, it will be before that. But the morning of the ninth I think is what we were talking about.

A I do not think it is at all. It looks to me like a medical procedure blood.

Q Thank you.

And during the course of -- getting back to the history, during the course of Dr. Whitworth trying to figure out what may be going on with this.

Would it have been helpful to Dr. Flora and Dr. Whitworth if someone would have advised him that the mother of the child at the hospital had made a statement to a hospital worker that when the child had come home two days or three days previous that she came home from visiting her father and she had a bloody discharged.

Is that something that Dr. Whitworth would have wanted to know in making his assessment?

A Sure.

Q Whether it be true or false?

A Sure.

Q Okay.

A I mean, we would always want history.

Q Okay. And it did appear that Doctor Whitworth would have talked to the detectives involved in the case, or did talk to them?

A I don't know.

Q Okay. All right.

I apologize for the long question, another

There is no other way to answer your question.

Q No way to know?

A No. It depends on how bad the tissue is damaged.

Q Is there anyway for y'all to know whether or not from what you have read if that injury happened on the morning of the ninth or some time on the 8th?

A No.

Q No way of knowing?

A I do not think so.

Q Okay.

A The only thing that gives us a clue there is the blood which is I would not expect bleeding on the 8th to still be there on the ninth. So, if those two things are associated then it would be there. If your question is it takes that out of the context, we are just looking at the bruise itself, then I would say that it is a bruise. You can not be sure if the bruise was the morning of the ninth or the morning of the eight. If you start backing up any more than that, it is too superficial to last, so then I would say no.

Q I understand. But the bruise itself, there is no way of knowing if it ever bled?

A Right.

Q Okay.

A Just by looking at it at the time that Dr. Whitworth looked at it you could not be sure at that point and time that it was the source of the bleeding.

Q Or it could have been further up inside?

A Maybe.

Q Okay.

A Maybe. I mean, again, they did not see any bleeding. So, you're kind of in that position of how would you know.

Q We do not know what we do not know.

A Right.

Q Okay. And could you help me with this. What are the various objects or mechanisms that could produce an injury to this nine o'clock, three o'clock thing? Could some reactions to bubble bath soap or any kind of thing; could something turn this thing red chemically?

A Yes, bubble bath soap. When we see kids that have red genital areas, abuse is real unlikely to be what we are looking at. It is much more likely that they are irritated in some way. You are talking about one, sometimes some feces have gone the wrong way. Bubble bath is one of the things that we see very commonly in pediatrics. I advised moms basically to you know regular water, no bubble bath. The chemical is a irritant. Sometime it happens for reasons that we have

no idea why someone gets particularly irritated. It can be bacterial infections sometimes that will do that. They will give you a general redness thing above and beyond kind of the normal red color.

Q Okay. Fungus?

A Right. That would be an infection.

Q Urine and feces? I mean, if somebody gets --

A Any chemical irritation or potentially a bacteria overgrowth or even fungus.

Q Is it possible for a parent when they are cleaning their child or changing their child to do it probably a little inappropriately too aggressively and cause a problem?

A Yes. Sometimes we see a little fingernail nick on the outer part of the genital area.

Q Okay.

A Not very often, but yeah, you can see that.

Q Okay. And in this case, the area that you're talking about is kind of the inside of some other materials, right?

A Right.

Q Okay. And one thing that is not injured on this thing which is often injured is there is something called the posterior Fourchette?

A Pretty close, yes.

really depend upon a lot of things, wouldn't it?

A Correct.

Q It would have to. And whether or not they can resolve or whether or not they can leave any tracking that there was ever an injury in the first place?

A I think it was superficially pretty much you are defining it will not leave anything long lasting. But you are right in a sense. It is not going to go away within 24 hours or it might last a little longer. That would depend on things. You are right.

Q Sure. And the injury to this child, I mean this is just a total leading thought. If someone was -- I think the statements and so forth and various things of this nature indicated that Toney Davis was seen -- I think a witness said he saw him take the child to the bathroom, put the child in the shower and things of that nature. And there is a statement that the child may have slipped out of his hands and fell. In the process of holding a wet baby, is it not possible somebody could have inadvertently snagged them as they went down?

A You know, we talked about that in the deposition. And I just do not have any experience or have heard such a thing. So, it would just be raw speculation.

Q Raw speculation?

MR. HENDERSON: I tender the witness.

THE COURT: Thank you.

Mr. Bledsoe, any redirect examination.

MR. BLEDSOE: Just very briefly.

REDIRECT EXAMINATION

BY MR. BLEDSOE:

Q With the acute -- the fact that there was acute blood, if I understand you correctly, that's what helps narrow and tie the observed injury, right?

A Well, I think it is helpful.

Q Yes.

A You know, again, it was described as being very superficial. And it is kind of hard to see on something that is flamed-shape ever was anything worst than that. Because flame-shaped kind of means that it is superficial. And it is not like the very end of a deep bruise.

Q Right.

A So, no. It does not seem very reasonable to me that that was anything ever than just a superficial bruise. But I think with the bleeding, and here is a known injury that we have at least by the time Whitworth is there at 4:00 or 4:30. And then some bleeding which again is probably being overstated. It is probably some tinged fluid and everything. It had stopped. I've got

Okay. Now, on the left temporal here, you see a somewhat purplish -- blueish/purplish contusion, suggesting several days old compared to the recent surgical procedure.

Now, to the back of the head of Caleeha, we can see some red discoloration similar to this operative site. This is an impact made very recently to the back of the head, compared it to this several-day-old impact to the temporal -- temporal area.

Okay. While we're there, let's go to -- here's the back of the head showing the more recent impact, kind of red. Okay. Here's the bruising to the back of the left ear of Caleeha. Again, it shows also the pain contusion of the left temporal. Then more of the same, the malar area, the cheek showing bruising and, again, we have the bronchial area with a bruise.

Q Did you do an examination of her eyes? Was she having problems with her eyes or anything?

A To the eyes. They described hemorrhaging in the retinal -- in the retina of the eye. Now, I do not have an ophthalmoscope so I just, you know, take what they tell me..

Q That's from the hospital?

area?

A Yes.

Q Now, would that be -- all those are fresh injuries also?

A Those are all -- well, let's put it this way. The ones in the cheek and the ones in the back of the head are all fresh, meaning with red -- with blood, red blood. The ones in -- the ones in the left temporal is of longer duration, meaning maybe a few days -- few days old. The -- the ones in the left malar area, back of the head and the forehead were all -- all recent origin.

Q Now, what do you think would have caused those when you say "recent"?

A All individual impacts to the head.

Q I mean, could a -- a fall would have done that?

A No, sir. Now, for the simple reason that they are located the deeper portions of the head. Now, if you fall, you fall on one portion and that's it. But these are all -- these cuts are all over the head.

Q All right. Now, the thorax, now, is that the semi-circular contusions (2) right back?

A Yeah. We described it earlier --

A That's correct.

Q Just tell me about your examination.

A I saw the child in the Pediatric Intensive Care Unit. I noticed in the course of the examination that she had several abrasions and bruises. She had a -- a particular bruise on the left temporal area. And there was some bruising on the buttocks. I did take photographs of those -- those lesions and I have those photographs here.

There was a mention in the chart that there was some other healed lesions on the left leg and there was noted to be some vaginal discharge by the rescue -- based on the rescue report.

The child was comatose at the time I saw her. She was not responsive to any external stimuli and she was on life support, requiring medications to support her blood pressure. And by the time I saw her, she already had an endocranial pressure monitor in place.

There were remarkable retinal hemorrhages.

Q Okay. Let me stop you there. What are you saying when you say "remarkable retinal hemorrhages bilaterally"?

A Basically, using an ophthalmoscope, I looked at the back of her eyes. And in looking at

than any other head injury that we had previously seen that was on the back of the head. Sort of to the left of center on the back of the head.

Q Taking into consideration what you've already testified about concerning the location of injuries on the head, how many plains or areas of this child's head were inflicted with injury?

A At least three.

Q And what is the significance of at least three plains of her head being injured?

A Simply means that she had to have been hit, or had to have hit her head against something three times, three separate times.

Q Would the injuries that you observed during the period of time her autopsy was conducted, were those injuries what caused her death?

A One or more of those injuries, yes.

Q Under what circumstances, Dr. Whitworth, do you see children dying from head injuries that severe?

A You see children dying from head injuries this severe from automobile accidents. You occasionally see children who fall from a second or third-story window, but unfortunately, most of the children that I see die from abuse with these injuries.

Q Second or third story buildings. Would the

height of an adult male dropping a child to the floor cause these injuries?

A No.

Q What was the most severe head injury that you observed?

A I observed a large collection of blood under the skin in the back of the head, slightly to the left side, which was associated with a large collection of blood within the skull across the back of the head and extending in between the two hemispheres of the brain.

Q How would the child have responded immediately after the infliction of that injury, Dr. Whitworth?

A This child would become symptomatic within seconds of the injury.

Q When you say symptomatic, what do you mean?

A I mean, she would have lost consciousness or maybe begin to have seizures or maybe stop breathing or some combination of those symptoms, but that she would be obviously neurologically symptomatic almost immediately after injury.

Q Could her response to the injury have been delayed for a sufficient period of time that she could sit down and start eating something and then all of the sudden have the injuries effect her?

A No.

Would you resume your seat now.

A Yes, sir.

Q Dr. Floro, did that brain injury that you just described, did that correspond to the other head injuries that you observed in the course of your autopsy?

A Yes, sir.

Q Is your opinion, within reasonable medical certainty, that this injury is sufficient to cause death?

A Yes, sir.

Q Did it cause the death of this child in this case?

A That's correct, sir.

Q Let me ask you, Dr. Floro, given the nature of that injury, do you have an opinion as to approximately how long after the impact injury unconsciousness would result?

A Well, unconsciousness will come in right away.

Q Would this child, Doctor, have been able to eat any food after suffering an injury of this severity?

A No, sir. She would be unconscious and naturally she wouldn't be able to eat.

Q And, Dr. Floro, did you examine the stomach contents of this child?

A Yes, sir, I did.

Q What, if any, food material did you find in the stomach contents?

A Small amount of, mostly mucus, and soft food. I could not identify the nature of that content, the stomach content.

Q Doctor, in your opinion could this child have eaten a number of French fries, either before suffering or after suffering this injury?

A No, sir.

Q In your opinion, Dr. Floro, what degree of force would be necessary to result in the brain injury that you found in this case?

A Severe enough to lacerate the bridging veins. Now, this bridge is veins are coming from the whole brain, the dura in the brain. If you hit the head hard enough, we don't experiment on this, I cannot get the child and hit the child, you know, repeatedly and see that; but if you hit it hard enough to lacerate the bridging veins, then you will kill the child.

Q Dr. Floro, would a single fall account for the multiple bruising that you found in the head and in the brain?

A No, sir.

Q Dr. Floro, then would you summarize for the members of the jury how many separate impacts that you found to this child's head resulting from your autopsy?

A Well, we said the child suffered from four

irritability, [and] poor feeding."[45] In this situation, "even an incremental increase [in] volume will result in a dramatic increase in pressure (disequilibrium) and the rapid evolution of symptoms leading to respiratory failure and death." Id. When intracranial equilibrium fails, perfusion ceases, consciousness is lost, and cardiopulmonary collapse develops. The risks associated with small additions in volume are even more pronounced in children, where intracranial pressure rises at a more rapid pace than it does in adults.

It is now generally accepted that a child can be lucid and appear essentially symptom-free (at least to a layperson) for up to 72 hours after suffering injuries that manifest as cerebral edema, subdural hematoma and retinal hemorrhages.[46]

It is no longer generally accepted that massive force is required to cause the triad. Medical literature today does not support the analogies of shaking to a high-speed crash or fall from a building. Thus, as a result of the updates in medical literature, it is now rare to hear the type of testimony given in this case, which suggested that subdural hemorrhage and retinal hemorrhage indicate forces comparable to those in motor vehicle accidents or falls from great heights. There is no medical or scientific support for this claim.

It is also now understood that one cannot simply look at the severity of a child's injuries and infer from that alone that a severe amount of external physical force must have been applied to the child. That simplistic equation does not account for preexisting injury, the passage of time, and the shifting nature of edema itself. The malignancy of edema does not always entail that a great amount of force was applied.

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[45] Leestma, *supra* note 26, at 380 & Figure 5, 10.

[46] *See* K.B. Arbogast et al. *Initial Neurologic Presentation in Young Children Sustaining Inflicted and Unintentional Fatal Head Injuries*, 116 Pediatrics 180 (2005).

that was present did cause the brain to expand within the cranial cavity, which compressed it globally and symmetrically, which is not the direct result of the subdural hemorrhage, *per se*. The brain swelling is not a direct impact injury to the brain, and no direct brain injuries (e.g., contusions) were identified at autopsy. Similarly, I am unconvinced by the diagnosis of brain herniation (the process of a swollen or displaced brain flowing into existing anatomical orifices or over internal barriers, causing damage to the brain tissue). The described grooving of the cerebellar tonsils is expected with brain swelling, but in the absence of damage to the tissue, herniation has not been established.

The lack of direct or intrinsic brain injury is relevant to the concept that the opinion rendered for the cause of death was not adequately supported by evidence. The more likely lethal mechanism was the brain swelling, which can be caused not only by physical trauma, but also in response to damage from inadequate oxygen and/or blood supply. Hypoxic damage (i.e., caused by insufficient oxygen) can be caused by anything that interferes with the supply of oxygen, including airway obstruction from choking on food. Just because she had a few scalp bruises, one cannot assume that she incurred lethal head trauma. (And of course, no microscopic examination was done on any of the head injuries, such as the scalp bruises, to demonstrate conclusively that they were actually contemporaneous with her clinical presentation. The only injury so examined was demonstrated conclusively not to be contemporaneous, as discussed below.) Dr. Floro's testimony regarding the causation and effects of head injuries was inaccurate and frankly misleading. He testified at trial (Transcript, at page 841) that "[I]f you hit the head hard enough...to lacerate the bridging veins, then you will kill the child." That statement is false. Torn bridging veins are the source of subdural hemorrhage. Therefore, Dr. Floro testified under oath that any impact to the head with enough force to tear bridging veins (i.e., to cause a subdural hemorrhage) will be lethal. That statement contradicts the very common experience that many people incur subdural hemorrhages that are not lethal, especially small volume subdural hemorrhages, as was present in this child. Dr. Floro and Dr. Whitworth also testified that head injuries would render the child unconscious immediately, which is also misleading, as that is not always the case. Some head injuries do allow for a period of consciousness, referred to as a lucid interval, before collapse and unconsciousness ensue. That is especially worthy of consideration in this instance, where no intrinsic brain trauma was identified at autopsy.

Retinal hemorrhages were an important clinical finding in the diagnosis of child abuse, but the eyes were not examined internally at autopsy, as they should have been.

As mentioned above, the only injury subjected to microscopic examination was the buttock bruising. That examination revealed that the bruise had fibrosis, i.e., a healing scarring process, and lymphocytic inflammatory infiltrates, which constitute chronic inflammation. Therefore, that bruising was not recent at the time the child presented to the hospital, and thus was unrelated to whatever events precipitated her collapse and her death. However, Dr. Floro opined that the buttock bruising was fresh, contrary to his own evidence. Dr. Floro also offered opinions in testimony about the ages of the various bruises based on visual appearances, but such estimates are unreliable, as has been demonstrated in the medical literature subsequently since this autopsy and the trial.

Dr. Floro testified that finding no hymenal injuries was not unexpected two days after they had been seen during the examination in the hospital. First, he has miscalculated and misrepresented the applicable interval, since the child died one day after having been examined, so the only interval available for healing was one day, not two. (The autopsy was performed two days after the examination, but during the second day after death until the

Floro and Dr. Whitworth testified at trial that the bruises were too fresh, but the evolving science shows that the bruising could have occurred hours earlier than previously thought. Alternatively, they could have been caused after C.C. was no longer in Mr. Davis' custody by the medical equipment used to try and stabilize her. Despite the trial doctors' testimony, there is no way to conclusively find that all of the injuries occurred when C.C. was in Mr. Davis' care. Recent literature confirms the absolute unreliability of attempting to date bruises with the naked eye and state unequivocally that it should not be done.

Dr. Alexander testified at the post-conviction hearing that retinal hemorrhaging indicated C.C. had not only been hit in the head but also shaken. Dr. Alexander's theories on the effects of shaking babies, often referred to as Shaken Baby Syndrome, have now been largely refuted as more research has been conducted in this area in recent years. The retinal hemorrhaging in this case is not consistent with a conclusion that C.C. was violently shaken.

Given the swelling and pathological findings in C.C.'s brain at the time of the autopsy, the timing is more consistent with a hypoxial event than a head injury. When there is a head injury, brain swelling progresses and peaks at cardiac arrest. If C.C. suffered a head trauma, her brain had already swollen to a point that she would have had to have hit her head before she was left alone with Mr. Davis. There was other scarring on C.C.'s body that predated the injuries in the autopsy report. There is nothing in the records indicating where those injuries came from or when they were made.

Hypoxia, which was a phenomenon well-known in 1995, occurs when a part of the body does not receive enough oxygen. The brain tissue is especially vulnerable to poor oxygenation. Because the brain is encased in a closed space, secondary swelling caused by damage to small blood vessels in a state of hypoxemia will result in increased intracranial pressure and subsequent

as opposed to fresh bruises to the buttocks?

A Would it make any difference in terms of what?

Q As far as -- we're talking about the pattern of other bruises. If they were old bruises to the buttocks.

A No. Bruises just suggest that the child has been struck.

Q Okay. Now, your diagnosis as to the head injury was -- she was having a --

A There's --

Q -- hemorrhage?

A There's some bleeding, yeah.

Q And the child subsequently died and cause of death, based on your examination, would have been what?

A Cerebral edema due to trauma.

Q Okay. Cerebral edema would be what, Doctor?

A Swelling of the brain. Whenever any tissue is traumatized, it swells, like when you hit your finger with a hammer. The swelling doesn't occur instantaneously, it occurs over time as those dead -- or those injured tissues lose their ability to maintain water balance inside and outside of the

cells. So an injured tissue loses its machinery, so to speak, the metabolic machinery to exclude water. Over time they swell. If you sprain your ankle at four o'clock in the afternoon, you feel some pain, but the next morning you may wake up with a very swollen ankle. It takes time for that swelling to occur.

Q Sort of like a soft tissue injury?

A It's a soft tissue injury, right. It also -- the swelling will occur due to lack of oxygen to the tissues. And she had a period of cardiac arrest and low oxygen so that the brain could have swollen from the lack of oxygen to the tissues.

Q Okay. You're saying the cause of death could have been the fact that because she was in cardiac arrest the lack of oxygen to the brain could have done it?

A Yeah, but that would not have caused bleeding in the brain. There was bleeding there, too. So the combination really says it was trauma.

Q Was the bleeding in a situation where the blood was pushing the brain further down into the neck or anything like that, it wasn't like that?

A Not the blood doing it but the swelling of the brain was forcing the brain contents to push down

Based on the medical records, my review of the literature, and my experience as a pediatric forensic pathologist, it is my opinion that much of the medical testimony presented during trial and post-conviction proceedings is not scientifically valid in light of recent advances in the medical community's understanding of the natural, accidental and non-accidental causes of cerebral edema, subdural hematoma and retinal hemorrhages. Additionally, the trial testimony in 1995 was based on an outdated belief that a short fall would be insufficient to cause a fatal outcome, which is now recognized as untrue.

It is apparent that there were many serious problems with the medical testimony at both the 1995 trial and the 2008 post-conviction evidentiary hearing. Scientific understanding and interpretation of brain injury in young children has changed dramatically in the years that have passed since these proceedings. Evidence based interpretation of the findings present in C.C.'s case has changed substantially and as a consequence what were assumed to be diagnostic criteria for brain damage due to abuse are no longer valid. In multiple venues, nationally and internationally, the criteria used to diagnose abusive injury with confidence in the past have been demonstrated to be unreliable. The chief issues that have come into focus are the scientifically unsupported beliefs that:

--Retinal hemorrhages are diagnostic for abuse;

--There is no lucid interval between injury and collapse;

--Violent shaking can and does cause subdural hematoma, retinal hemorrhages and brain swelling that can be diagnosed on the presence of these three criteria;

--Short falls cannot cause fatal brain injury;

All of these questionable beliefs were presented in Mr. Davis' case. Much of the medical testimony surrounding the cause of death has no basis in current medical science. Some of these

oxygenation and even death. Because the postmortem evidence shows brain damage caused by failure of circulating oxygen to the brain, past medical treatments and illnesses may have a bearing on the patient's vulnerability or risk for morbidity or more serious outcomes. Review of the environmental and medical history is an important standard of practice in not only the care of young patients, but in the forensic analysis and certification of death.

The forensic review of this case also must consider the state of the medical community's understanding and beliefs regarding childhood head injuries.

- 1995 – At the time of Mr. Davis' trial, the forensic world supported the theory that short falls don't kill, violent shaking a baby can cause brain damage such as seen in CC's case and retinal hemorrhages can diagnose shaking.
- By 2008, controversies regarding the reliability of interpreting retinal hemorrhage, brain swelling and subdural hemorrhage for the diagnosis of abuse were well known and biomechanical studies of the risk of short fall's available in the published literature. In other words, the entity commonly referred to as The Shaken Baby Syndrome was under credible scientific and verifiable attack
- 2019 – In todays literature there is substantial confirmation that the diagnosis of shaking based on the findings of subdural hemorrhage, retinal hemorrhage and brain swelling is not reliable.

More importantly, there is NO question that although rare, short falls can kill.

I hold the above opinions to a reasonable degree of medical certainty. By this I mean, I am qualified to address the issues, I have adequate evidence to answer the questions I have addressed in this report, I can provide evidence to support my conclusions, I am sure

"multilayered, too numerous to count, and extending to the edge of the retina, "such that the mere presence of retinal hemorrhages does not indicate shaking in every case.[33]

Subdural Hematoma and Short Falls

Testimony at Mr. Davis' trial indicated that short distance (such as a fall from a parent's arms or a fall off a table or chair) could not cause a subdural hematoma in a child. Indeed, as explained above, the 2001 AAP Statement asserted that the constellation of injuries associated with SBS "does not occur with short falls.[34] There is now general agreement that subdural hematomas in infants are not caused exclusively or almost exclusively by shaking or inflicted trauma.

Not only are subdural hematomas no longer associated exclusively with abuse, they are now understood to have a variety of causes.[35] The most common of subdural hematomas, at any age, is head impact.[36] This is reflected in statistics collected by the Centers for Disease Control and Prevention which show that falls are the most frequent cause of traumatic brain injury.[37] It is now generally accepted that a short fall, such as a fall from a chair, can cause cerebral edema, subdural hematoma and retinal hemorrhages

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[33] *See, e.g.*, Alex V. Levin & Cindy W. Christian, *Clinical Report—The Eye Examination in the Evaluation of Child Abuse*, 126 Pediatrics 376, 377 (2010).

[34] *See* 2001 AAP Statement, *supra* note 6 at 206.

[35] *See* Leestma, *supra* note 26, at 484 ("A wide spectrum of forces can case SDHs, and there are many causal and contributing nontraumatic conditions that can also produce them.").

[36] *See* Leestma, *supra*, note 26 at 485.

[37] *See Centers for Disease Control & Prevention, Report to Congress: The Management of Traumatic Brain Injury in Children* 5 (2018)(noting that traumatic brain injury in children can be caused "by a bump, blow, or jolt to the head" and that the leading causes of traumatic brain injury and death in children from 0-14 years of age were "unintentional falls and being struck by or against an object"); id, at 20 ("Falls are the leading cause of TBI-related ED visits in the youngest children (0-4 years), accounting for more thatn 70% of TBI-related ED visits in this age group in 2013.").

and that short falls can be fatal, and it is no longer general accepted that short falls of less than three or four feet can never cause the SBS triad.[38]

Moreover, recent contributions to the biomechanical and neuropathology literature have led to a sea of change in the interpretation of short falls and subdural hematomas. New medical evidence shows that short falls can cause sufficient force to cause a subdural hematoma. Indeed, a fall from a 5-foot bunk bed would create a peak velocity of over 12 mph. It is now understood that the forces of impact from a fall far exceed the forces of, for example, shaking. Biomechanical studies have repeatedly indicated that vigorous shaking of an infant is insufficient to cause the pattern injuries associated with the triad.[39]

New medical evidence shows that lesser force may be necessary when there is a preexisting injury. The presence of the preexisting injury effectively lowers the child's brain injury threshold. Chronic subdural hematomas can and often do rupture due to minor trauma, or even on their own, leading to re-bleeding. Rebleeds of chronic hematomas can and do occur. This can cause seizures, increased intracranial pressure and, potentially, neurologic collapse in small children.[40]

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[38] *See, e.g.*, Shuman, *supra* note 28 at 808 (reporting subarachnoid hemorrhage, subdural hemorrhage of the spinal cord, bilateral retinal and optic nerve sheath hemorrhages, and a retinal fold in a 14-month old child who fell off a train ride in a mall and later died); Patrick E. Lantz et al., *Fatal Acute Intracranial Injury, Subdural Hematoma, and Retinal Hemorrhages Caused by Stairway Fall*, 56 J. Forensic Sci. 1648, 1648 (2011)(reporting on infant death after stairway fall and noting that the report "contradicts the prevalent belief of many physicians dealing with suspected child abuse that low-height falls by young children are without exception benign occurrences and cannot cause fatal intracranial injuries"); Plunkett, *supra* note 22 at 4 (multiple witnessed short falls resulting in symptoms associated with SBS, including a videotape of a 23-month old toddler's fatal fall from a 28-inch plastic gym set).

[39] *See* Leestma, *supra* note 26, at 634-39.

[40] See, e.g. Leestma, *supra* note 26 at 614 ("some subdural hematomas become chronic and enlarge, with varying consequences, and that chronic subdural hematomas regularly are shown to contain recent bleeding, or rebleeding"); Barnes *supra* note 25 at 217 ("The pathology and pathophysiology of neomembrane formation in chronic SDH, including rebleeding is well established in adults and seem similar, if not identical, to that in infants.").

From: Steven Gabaeff, M.D. [sgabaeff@adnc.com]
Sent: Monday, September 26, 2011 5:41 PM
To:
Cc: 'Keith Findley'
Subject: RE: Questions for you

SEE ANSWERS BELOW. KIETH CAN YOU LOOK AT THIS?

Regards,

Steven C. Gabaeff, MD, FAAEM, FACEP
916 485 6706
sgabaeff@adnc.com

From:
Sent: Monday, September 26, 2011 4:28 PM
To: sgabaeff@adnc.com
Subject: Questions for you

Dear Dr. Gabaeff,

I'm writing you on behalf of a prisoner currently incarcerated on death row in Florida. He asks the following questions pertaining to your SBS treatise published in the Western Journal of Emergency Medicine, October 25, 2010.

1. Can suspected impact injury without skull fracture cause torn bridging veins? NO
2. If no, would you reason that some other etiology is the cause of the torn veins? THE VEINS CONTRARY TO WHAT THEY SAW ABOUT SHAKING DO NOT TEAR. AS YOU CAN SEE THERE ARE QUITE STRETCHABLE.. WAS THERE CLEAR EVIDENCE OF , TEARING OR WERE THEY JUST SPOUTING DOGMA
3. If there is evidence of multiple subdural hematomas found during autopsy, but no external evidence of injury, is that definite evidence that each SDH is from a separate blow to the skull? NO IT IS CLEAR THEN THAT IT WOULD BE A GLOBAL INSULT LIKE LACK OF OXYGEN-HYPOXIC ISCHEMIC ENCEPHALOPATHY
4. If no, would a finding of multiple impacts be a reliable diagnosis? NOT AT ALL ... W/O SOFT TISSUE INJURY THERE WERE NO IMPACTS
5. Given the fact that there were torn bridging veins but no skull fractures and multiple areas of SDH but no external injuries, would a finding of homicide by blunt force multiple traumas be reliable? NOT AT ALL ... I WOULD BE SUSPICIOUS OF THE TORN VIEN THEORY. IT WAS DOGMA AND NEVER SHOWN TO BE TRUE. IT WAS A MADE UP IDEA TO ACCOUNT FOR BLEEDING FROM OTHER CAUSES. IT ONLY OCCURS WITH DEPRESSED SKULL FRACTURES WITH SHARP EDGES THAT CUT THE VEINS. IF THE CONVICTION WAS A WHILE AGO THAT IS THE NONSENSE THAT WAS POPULAR THEN

6. Could an accidental drop or fall from a short distance or some other etiology cause these types of injury? DEFINITELY AND ADD BRAIN SWELLING AND A FEW HOURS AND BLOOD FLOW CAN STOP AND THE ENTIRE BRAIN CAN DIE
7. Finally, is your medical opinion based on recent information gathered from a study conducted in Canada? NO IT IS BASED ON THE RESEARCH I CITE IN MY ARTICLE AND THE CANADIAN FINDINGS ARE BASED ON THE SAME RESEARCH ... CONTACT KIETH FINDLY OF THE INNOCENCE PROJECT (I CC'S HIM)... IF YOUR FRIEND IS ON DEATH ROW THEY MAY BE INTERESTED IN HELPING HIM.. SEE THE TUERKHIEMER ARTICLE I HAVE AS REFERENCE, SHE WROTE THAT WHEN THE INNOCENCE PROJECT GOT INTERSTED IN SBS. GOOD LUCK. SG

Thank you for your time and consideration.

Sincerely ~

IN THE CIRCUIT COURT,
FOURTH JUDICIAL CIRCUIT,
IN AND FOR DUVAL COUNTY, FLORIDA

STATE OF FLORIDA,

Plaintiff,

v.. Case No.: 1992-CF-13193

TONEY DERON DAVIS,

Defendant.
_____/

AFFIDAVIT OF DR. STEVEN C. GABAEFF, M.D.

I, Steven C. Gabaeff, MD, FAAEM, FACEP, declare and state:

1. I am a board certified emergency medicine ("EM") physician, and I have been practicing EM since 1976. I have practiced clinical forensic medicine for the past for 26 years and during that time I have consulted on 3000+ cases. I have been a consultant to the Central Complaint Unit of the Medical Board of California. I have a particular interest in child abuse and have published on this subject. My C.V. is attached.

2. I have been asked to provide a brief preliminary analysis in the matter of the death of the child in this case of Toney Davis regarding whether the child suffered abuse.

3. After becoming familiar with the relevant records and opinions, I believe that a very real possibility, if not an outright substantial probability, exists that the injuries suffered by the child were accidental, rather than caused by abuse, or at least not abuse committed on the day the child was taken to the hospital.

4. I believe that further analysis and review of the medical records is essential in this case to reconsider the medical findings to determine whether this defendant was wrongfully convicted of abuse based on the faulty medical orthodoxy regarding Shaken Baby Syndrome ("SBS"), now referred by the nonmedical term of Abusive Head Trauma ("AHT") that was held by the majority of the medical community at the time of the defendant's trial in 1995.

5. Around the time of Mr. Davis's trial, the majority of child abuse experts were using the triad of the diagnostic findings of subdural hematoma, retinal hemorrhages and any form of brain insult, which was and still is a hypothesis incorrectly and without evidentiary basis, as clear and sufficient proof to diagnose shaken baby syndrome.

6. The majority of child abuse experts also assumed in 1995 that the alleged abuse that caused those three findings would lead to the immediate onset of unconsciousness and/or coma, and the possibility of a delayed onset of those symptoms was not considered to be a possibility.

7. Recent research is establishing that both of those assumptions—(1) that the triad of finding listed above are pathognomonic of abuse, and (2) that the onset of unconsciousness and/or coma would necessarily be immediate—are definitely wrong[1].

8. Specifically, the child may have suffered an injury to her head up to hours, days, in some cases weeks prior the onset of the symptoms that necessitated her being rushed to the hospital. In many cases injuries dating back to birth can be relevant to findings that can occur in the first year of life[2]. Recent studies have shown that up to 1.8 million babies have bleeding at birth[3] and up to 700,000[4] of those babies suffer complications that can lead to findings that mimic the findings used to misdiagnose child abuse.

9. Further, there are a myriad of blood diseases and other conditions that can mimic the supposed indicators of abuse, and these were never eliminated as possible explanations of some or all of the symptoms that the child exhibited. Such conditions would include, but are not limited, to Von Willebrand disease, coagulopathies, and ruptured vascular malformation.

10. I have reviewed excerpts from the testimony of the State's medical expert witnesses at trial, and multiple statements made in their testimony were based upon those faulty assumptions, and recent medical research has provided proof of their error.

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[1] Gabaeff SC. Challenging the Pathophysiologic Connection between Subdural Hematoma, Retinal Hemorrhage and Shaken Baby Syndrome. West J Emerg Med. 2011 May;12(2):144-58. (attached)

[2] Gabaeff SC. Investigating the possibility and probability of perinatal subdural hematoma progressing to chronic subdural hematoma, with and without complications, in neonates, and its potential relationship to the misdiagnosis of abusive head trauma. Leg Med (2013). ePub. (attached)

[3] Rooks VJ, Eaton JP, Ruess L, Petermann GW, Keck-Wherley J, Pedersen RC. Prevalence and evolution of intracranial hemorrhage in asymptomatic term infants. Am J Neuroradiol. 2008 Jan; 29(6): 1082-9

[4] Beca J, Gunn JK, Coleman L, Hope A, Reed PW, Hunt RW, Finucane K, Brizard C, Daace B, Shekerdemian LS. New White Matter Brain Injury After Infant Heart Surgery Is Associated With Diagnostic Group and the Use of Circulatory Arrest. Circulation. 2013; 127: 971-979.

11. For instance, the State's experts made the following inaccurate and/or unjustified claims at Davis' trial:

    a. Retinal hemorrhages such as these would be caused by [only] severe head injury such as car accident or fall from second-story building or shaking. (Dr. Whitworth)

    b. An adult male dropping a child to the floor would not cause these types of injuries. (Dr. Whitworth)

    c. Injuries to victim were not consistent with being dropped by an adult onto the bathroom floor. (Dr. Whitworth)

    d. It would take a severe strike to lacerate the bridging veins as occurred to victim. A single fall did not cause this victim's injuries. (Dr. Floro)

    e. Said injury would have become symptomatic within seconds of injury, meaning that victim would have lost consciousness or maybe having seizures or maybe stop breathing. Injuries could not have been delayed. (Dr. Whitworth)

    f. Medical conclusion is that victim "died as a result of multiple blunt traumas to the head with cerebral hemorrhage, cerebral edema, going to coma and death." (Dr. Floro)

    g. The manner of death was homicide. (Dr. Floro)

    h. Victim's cause of death was the injuries to the head. Unconsciousness would have come right away. (Dr. Floro)

12. These statements are all based on research that has been proven false by old and recent medical research, and that former orthodoxy has been criticized in a dissenting opinion by Justice Ginsburg in a U.S. Supreme Court case. Cavazos v. Smith, 132 S. Ct. 2, 10-11, 181 L. Ed. 2d 311, reh'g denied, 132 S. Ct. 1077, 181 L. Ed. 2d 794 (U.S. 2012). Furthermore, a more recent and declarative statement a Federal Judge[5] was published in a ruling in shaken baby case. The guilty verdict was reversed and a declaration of innocence of the defendant was made. In that published decision the judge stated that "in addition to the other more recent developments in this area previously discussed, a claim of shaken baby syndrome is more an article of faith than a proposition of science"

13. In conclusion, the State developed its theory of the case from these findings, consistently with the then current pseudo-scientific assumptions at the time, that the

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[5] Matthew F. Kennelly, District Judge. In The United States District Court for the Northern District of Illinois Eastern Division. Jennifer Del Prete, Petitioner, vs. Sheryl Thompson, Respondent. Memorandum Opinion And Order. Case No. 10 C 5070 Filed: 01/27/14. Pg 1-97. See footnote page 95-96.

findings the child exhibited were pathognomonic of abuse and that they would have triggered unconsciousness etc. at the moment the abuse was rendered. These assumptions were never proven to be true when they were originally hypothesized. No testing experimentation or any analysis using any accepted scientific methodology to prove their validity was ever done. Since then the assumptions of the shaken baby hypothesis, have been definitively contradicted by advancements in medical science.

Signature of Affiant

Sworn to and Subscribed before me this 03 th day of October, 2014, by Dr. Steven C. Gabaeff, who ~~is personally known to me~~, or who ☑ has produced CA DR Lic identification, and who did take an oath.

Notary Public, State of ~~Florida~~ CALIFORNIA

SATCHIN DEO
COMM. #2028634
Notary Public-California
SACRAMENTO COUNTY
My Comm. Exp. JULY 9, 2017

ES11

SATCHIN DEO

Print or stamp commissioned name of notary.

A No, that's about it. Also she had evidence of being operated on. They put a pressure monitor in the head and they cut that to relieve the pressure, so . . .

Q Okay. Anything -- now, you did an internal examination also of her main body?

A Yes.

Q Did you find anything unremarkable about that?

A No, sir. Well, okay, let's go to the chest. In the lungs, microscopically, I saw infection of the lungs which we call pneumonia.

Q She had pneumonia?

A I saw pneumonia in the lungs. I didn't see any evidence of asthma or anything of that nature, obstructive nor any obstructive lung disease.

Q When you say she had pneumonia, she was sick then?

A Well, she was in the hospital unconscious and you can get pneumonia over a period of time, about 30 hours, you can get pneumonia and that's where she got this.

Q You can't say whether or not she had that before she went in?

A I think she had pneumonia in the hospital,

being unconscious.

Q Okay.

A And this is early -- bronchial pneumonia is early form of pneumonia. Okay. In contrast to lobular pneumonia, when you have that for quite some time.

Okay. Heart, I didn't see any abnormalities of the heart. The heart was normal. The liver was normal. The gastrointestinal tract, I didn't see any abnormality of the gastrointestinal tract. The stomach contained small amount of soft mucoid material, about a teaspoon, that's all I have in the stomach. No abnormal lacerations or anything like that.

So the internal organs, the liver, the kidneys, the -- the genitalia -- internal genitalia, they're all within normal limits.

Q Okay. The moderate congestion you've got under the hepatobiliary system, we're talking about the lungs also?

A Where are we?

Q Neck, cardiovascular, respiratory system, then you've got that --

A Yeah.

Q -- moderate congestion of the lungs and all

NECK:

Layerwise dissection of the neck organs does not reveal any evidence of injury or pathological changes. The strap muscles, cartilages and bony structures do not show any evidence of injury or pathological changes.

CARDIOVASCULAR SYSTEM:

The heart weighs 70 grams. The coronary arteries pursue their usual courses and their lumens are patent throughout. The myocardium is firm and reddish brown. The aorta and major vessels are unremarkable. The chordae tendineae, valve rings and leaflets are not remarkable.

RESPIRATORY SYSTEM:

The lungs are edematous and firm. On sectioning, moderate amount of frothy fluid exudes from the cut surfaces and the tracheobronchial tree contains frothy material. The pulmonary artery as well as the intrapulmonary vessels are not remarkable. There is parenchymal congestion.

HEPATOBILIARY SYSTEM:

The liver weighs 390 grams. There are no focal lesions present. The lobular architecture is intact. There is moderate congestion. The gallbladder and the extrahepatic biliary duct system are unremarkable.

GASTROINTESTINAL TRACT:

The esophagus, stomach, and the small and large intestines are unremarkable. The stomach contains approximately 15-20 cc's of soft mucoid unidentifiable material.

PANCREAS:

Unremarkable.

SPLEEN:

The spleen weighs 35 grams and is unremarkable.

ADRENALS:

Unremarkable.

separate impacts; one in the right forehead and temple, one to the left cheek, one to the left ear and one to the back of the head.

Q Doctor, do you have the ability, as a medical examiner, to determine, during the course of an autopsy, whether the deceased person suffered from an asthmatic-type condition?

A Well, yeah, I have the ability. I examine every organ of this child under the microscope. I didn't see any evidence of lung disease, I didn't see any evidence of asthma or any fibrosis of the lung.

Q You found no evidence of this child suffering from asthma; is that correct, Doctor?

A No, there was no asthma, sir.

Q In conclusion, Dr. Floro, based on your experience as a pathologist and your complete examination of the body of Caleasha Cunningham, do you have an opinion within reasonable medical certainty as to the cause of this child's death?

A Yes, sir.

Q What is that, sir?

A That Caleasha died as a result of multiple blunt traumas to the head with cerebral hemorrhage, cerebral edema, going to coma and death.

Q Do you have an opinion within a reasonable

medical certainty as to the manner of this death?

A Yes, sir. The manner of death is homicide.

MR. BLEDSOE: May I have a moment, Your Honor?

THE COURT: Yes, sir.

MR. BLEDSOE: I have no further questions at this time of this witness, Your Honor.

THE COURT: Mr. Adams, any cross examination?

MR. ADAMS: Yes, just briefly.

CROSS EXAMINATION

BY MR. ADAMS:

Q Dr. Floro, I was looking at the ME Report and under the respiratory system it says you note there is, if I'm pronouncing it, parenchymal congestion.

A Parenchymal congestion, yes, sir. What page are you in, sir?

Q This is page 3.

A And you are in the --

Q Respiratory.

A Respiratory system. Yes, sir.

Q Does that deal with the lungs, respiratory system?

A Yes. The lungs are under the respiratory system, yes, sir.

Q And you have listed there, last sentence, "There is parenchymal congestion."

A Yes, sir.

Q Is that fluid or mucus in the lungs?

A No, sir, that means the lungs are red, due to the pooling of blood.

Q Did you find any mucus in the lungs?

A Well, there is a little branches of the tracheal bronchial tree, the windpipe contains some mucus, yes.

Q And you also found, indicated in the gastrointestinal tract you did find food in the stomach; am I correct?

A Yes, sir.

Q All right. Now, that food could have been eaten prior to her injuries; am I correct?

A Yes.

Q And on the first page, external examination, you state in the last paragraph, in situ examination of vagina and anus show evidence of injury. The hymen is intact. That indicates the hymen has not been lacerated; am I right?

A That's correct.

Q Then you opened up -- go through, I'm assuming, the head as far as what you testified to as opening up the cerebral cavity?

A Yes, sir.

Q And then you also get into the endocranial

County of Dade]
State of Florida]

Before me Dr. Ronald K. Wright MD JD appeared, was duly sworn and said:

1. My name is Dr. Ronald K. Wright. I am a physician and attorney duly licensed by the State of Florida to perform both professions. I am a board certified anatomic, clinical and forensic pathologist. I am and have been a full time member of the faculty of the University of Miami School of Medicine for 25 years. I am director of forensic pathology.
2. Mr. Toney Davis asked me a series of questions that I answer as follows. If a child ate cereal at 0900, head injuries occurred after 1200, should a subsequent autopsy discover the cereal? No. The finding of identifiable cereal suggests a time interval of less than 3 hours.
3. Is it possible for the vagina of a pre-pubertal girl to bleed without injury to the hymen? While perhaps possible, it is highly unlikely if there is trauma sufficient to produce vaginal bleeding without hymen injury.
4. The above answer presumes that the vaginal bleeding was produced by involuntary sexual battery.
5. Would a vaginal/hymeneal injury sufficient to bleed, heal in 24 hours to the extent that it would not be discernable by physical examination or autopsy? No. While children heal fast, this would be impossible.
6. Would autopsy examination reveal injury to the vagina/hymen sufficient to cause bleeding with a period of 24 hours between injury and death? Yes, if done by a reasonably competent pathologist who was looking for vaginal injury.
7. Is it possible for the body to heal injuries after death? No.
8. I would have testified to the above had I been asked to do so by the State or Defense in this matter.

Ronald K. Wright MD JD

Signed and sealed this seventeenth day of May, nineteen hundred ninety nine by Dr. Ronald K. Wright MD JD who is personally known to me.

Estela Garcia-McDougal
My Commission CC748288
Expires July 22, 2002

possibly a developing pneumonia, that caused her to collapse, leading to her admission of 12/9/1992.

The Autopsy Report did not contain any reference to making vaginal swabs or smears, nor to examining any such slides. The apparent vaginal smear slide that was provided for my examination was of poor technical quality, such that the contents could not be adequately focused under the microscope. I could not identify any specific types of cells, including spermatozoa, on it. Therefore, the slide was not demonstrative or diagnostic of anything. However, even if not contributory, it should have been described in the Autopsy Report.

The Autopsy Report included a microscopic description: "SKIN OF BUTTOCKS: Subcutaneous hemorrhage with fibrosis. Red cells hemolyzed lymphocytes predominate." As discussed in the Report, this description is of a healing bruise with chronic inflammation, which must have predated the day of the collapse leading to death of Calesha. Two slides of skin and subcutaneous tissues were provided for my examination. Slide 11, which was taken from the buttock, had zones of hemorrhage beneath the skin with breakdown of the red blood cells, inflammation by mononuclear cells, focal fat necrosis with reactive foamy macrophages, and areas of early fibrosis formed by plump fibroblasts (i.e., young connective tissue cells); this slide also contained pigmented cells indicative of a "Mongolian spot" birthmark, which is commonly seen on the buttocks or lower back. Although my more detailed microscopic findings are not identical to the brief microscopic description in the autopsy, both are consistently indicative of an injury with healing that was significantly older than the day of presentation to the hospital. I also examined Slide 14 that had findings similar to Slide 11, with red blood cell breakdown in the fresher-appearing hemorrhage, and reactive fibroblasts (i.e., the beginning of a scarring process), but no Mongolian spot. This, too, is a lesion that predated the day of presentation to the hospital. The Autopsy Report should have specified that there were two slides of skin and subcutaneous tissues, and the origins of the tissue samples. Regardless, the microscopic findings indicate that the bruises sampled for microscopic examination were older than the day Calesha collapsed, and therefore, those injuries were unrelated to the causation of her death. (Failure to account for injuries that were older, and thus not related to causing the collapse or death of Calesha, was a similar flaw in the analyses of the pediatrician, Dr. Whitworth.)

The Autopsy Report described bilateral subdural hemorrhage overlying the brain, amounting in total volume to "6-8 cc's." No gross or microscopic description of the dura was included in that report. However, Slide 13 provided for my examination contained the dura, as well as separate fragments of subdural hemorrhage. While all slides made from an autopsy should be specifically described in the autopsy report, in this instance in which the medical examiner concluded that the cause of death was "subdural hemorrhage due to blunt impacts to head," it is inconceivable that description of this slide would be omitted from the Autopsy Report. To my microscopic examination, the dura had thin zones of apparently fresh subdural, intradural, and even epidural hemorrhages (i.e., bleeding under and overlying the dura, as well as within the dural membrane proper). The separate fragments of subdural hemorrhage contained areas of mostly acute inflammatory response with some macrophages, without evidence of further healing. These findings are consistent with the descriptions in the Autopsy Report that the subdural hemorrhages were of small volume (i.e., insufficient to constitute a lethal mechanism, as discussed in the Report). While the inflammatory response is consistent with the subdural hemorrhage having occurred on the day of collapse and presentation to the hospital, the presence of macrophages, which represents advancement of the inflammatory process, is also consistent with the hemorrhage having occurred within days before the event.

In summary, my microscopic examination has corroborated that Calesha had pneumonia when she died; the exuberant inflammatory response containing macrophages indicates that this process was present before admission. As discussed above, the hospital records do not reasonably exclude that she had pneumonia on admission, which could have been the reason for her respiratory collapse. My examination has also demonstrated that the autopsy and its report were deficient by not describing all the slides that were made from the procedure, including an apparent vaginal smear, and a slide of the dura and subdural hemorrhage, the latter of which was purportedly (albeit incorrectly) attributed as being the fatal injury. My microscopic examination also confirmed the autopsy findings that indicated that the only cutaneous injuries that were sampled for microscopic examination were older than the day of her collapse, and therefore, those injuries were not fresh as represented by the medical experts who testified at trial, and in fact were thus not related to the causation of the death of Calesha.

All opinions in this report 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, PA

By: Jonathan L. Arden, MD, FCAP
President

Baptist Medical Center &
Wolfson Children's Hospital
Jacksonville, Florida

C493A

CUNNINGHAM, CALEASHA
HISTORY NUMBER: 552934

DATE OF OPERATION: 12/09/92

PREOPERATIVE DIAGNOSIS:
1. Shaken baby syndrome.

POSTOPERATIVE DIAGNOSIS:
1. Same.

OPERATION PERFORMED:
1. Bilateral frontal trephinations for placement of left external ventriculostomy and left Cimino intracranial pressure monitor.

SURGEON:
Walter J. Faillace, MD.

ASSISTANT:
Pediatric ICU nurses.

ANESTHESIA:
Local Lidocaine with epinephrine.

INDICATIONS FOR SURGERY:
The patient was comatose and had the clinical features and history compatible with a shaken baby syndrome. She was situated in the pediatric intensive care unit in critical condition.

PROCEDURE IN DETAIL:
The patient was given 50 mg/kg of Nafcillin intravenous antibiotic as a prophylaxis to infection prior to beginning the surgery. The hair of the bifrontal region was shaved widely. The scalp was scrubbed with soap for five minutes and swabbed with Betadine and a sterile field was fashioned. The right frontal region was found and infiltrated with a solution of 1% Lidocaine with epinephrine. A straight incision of 2 cm in length was made just anterior to the coronal suture and centering in the mid pupillary line. Using a Bunnell hand twist drill, a 5 mm bur hole was placed. The dura was opened with a stylette. Then the Cimino key was screwed into the hole. The Cimino intracranial pressure monitor ventriculostomy system was first used and attempt was made to cannulate the right lateral ventricle but this could not be done. Apparently the child had further cerebral edema and she showed small ventricles on the preoperative CT scan. After several passes, the ventricle still could not be cannulated and there was hematomatous fluid and brain exuding through the bur hole, indicating marked intracranial pressure. The Cimino key was removed and that wound

Continued . . .

CUNNINGHAM, CALEASHA
HISTORY NUMBER: 552934

was closed in single layer using 3-0 nylon. Attention was then directed to the left frontal region where an incision was made just anterior to the coronal suture centering in the mid pupillary line. Again a 5 mm bur hole was placed and the dura was opened with a stylette. The Cimino system was passed into the left frontal region but the ventricle could not be cannulated. The interventricular catheter was attempted and this was successful. The CSF emerged pink and it was under high pressure. The catheter was passed by aiming towards the medial canthal fold and toward the tragus in the anterior-posterior direction. It was left in place a total depth of approximately 5 cm. Then a separate incision was made in the skin and the catheter was tunneled subgaleally and brought out through a separate stab wound in the skin. Both wounds were closed in a single layer using 3-0 nylon. Two drain stay sutures and a respirator stitch was applied. Because the CSF was slow and the ventricles were slit, we thought that the drain would stop flowing the recordings might also stop due to plugging of the pores of the ventricular catheter. Therefore Cimino intracranial pressure monitor was placed to give intracranial pressure recordings. This was done by making a 1.5 cm incision anterior to the left frontal incision. The pericranium was reflected and then using a Bunnell hand twist drill, a 3 mm bur hole was placed. Then the Cimino key was screwed into the bur hole, the dura was opened with a stylette and the Cimino intracranial pressure monitor with 0 to the atmosphere and introduced a total depth of approximately 5 mm. The opening intracranial pressure was 68 mmHg. This was extremely high and gave her a cerebral perfusion pressure of approximately 15-20. The wound was then closed in a single layer using 3-0 Dexon and a _____ stitch was applied. Sterile dressing was placed. She tolerated this procedure well. She remained in critical comatose condition.

[redacted]

Walter Faillace, MD.
WF:ww
D:12/09/92
T:12/09/92

medical inaccuracies should have been known at the time of trial in 1995, while others have since been debunked due to evolving medical science.

Dr. Bonifacio Floro, the medical examiner, referred to multiple impact points along C.C.'s head to find that the cause of death was blunt force trauma. However, in reviewing the autopsy photos, there is only one significant impact point, which is located in the back of C.C.'s head. This would be consistent with Mr. Davis' trial testimony that he had dropped C.C. while she was in his care.

Dr. Floro testified that if Mr. Davis had dropped C.C. in the shower, as Mr. Davis testified, that this would not have been a far enough drop to cause the injuries seen on her. This opinion is contrary to known biomechanical science and studies. Dr. Floro repeatedly stated that the injuries she suffered are more consistent with a fall from a building several stories high. There is no scientific evidence to support such a claim. Since Mr. Davis' 1995 trial, the science in this area has evolved so that it has now been shown that falls of a relatively short distance [3 feet] can cause severe, and sometimes fatal, injury in small children and toddlers. There have been studies that report injuries from extreme heights and C.C. did not have such a pattern of injury. As a matter of fact, the CDC reports the data regarding causation of traumatic brain injuries in children C.C.'s age, and falls are the number one cause of injury by a vast majority. Biomechanical studies have established that falls as short as one foot can cause fracture and intracranial bleeding. Impact onto an unyielding surface such as a shower tile or porcelain floor from the height of an average height man's arms can deliver a fatal blow.

The interpretation of color and swelling around a bruise to gauge the timing of bruises is another area of science that has evolved since the 1995 trial. There were questions as to whether some of the bruises on C.C.'s body could have occurred before she was in Mr. Davis' care. Dr.

MR. BLEDSOE: Very briefly, Your Honor.

REDIRECT EXAMINATION

BY MR. BLEDSOE:

Q Dr. Floro, this injury to the back of the head that you found on your internal examination; is that consistent or inconsistent with a child simply falling, or being dropped from --

A If the fall is less than four feet, it's not consistent with. You're not supposed to get that kind of injury if the fall is less than four feet.

Q With respect to the stomach contents. Now, you indicated you didn't find evidence that the child had consumed French fried; is that correct?

A That's correct.

Q But you found some stomach contents.

A Yes.

Q Would the stomach contents that you did find be consistent with the child having consumed some cereal a few hours prior to suffering the injury?

A It could be, yes, sir.

Q So you're making a distinction between cereal contents and French fries; correct, sir?

A That's correct. French fries you will see in the stomach, sir.

Q They would have been there; is that correct?

10-12-94
1545 Hours

Received a phone call from: Attorney Steve Weinbaum
PH: 354-6002

Reference his client: Um. ~~Wayne~~ Elliott
PTDF 6th Floor Dorm W3A Cell 053
Jail #94-25634-1
WM, tall, blond
surfer type
in jail on federal drug charges

Elliott has information regarding Tony Davis

Davis is in jail for murder

Victim: Caleasha Cunningham; Homicide #92-140

Hallam's case, going to trial shortly

According to Weinbaum: Elliot says he "knows where the weapon is and something else"

Weinbaum says he doesn't know what the "something else" is

I know that Hallam is sweating this case...

It's largely circumstantial and a little weak

Elliott wants help with his drug case

He wants to talk to a detective

Electronically Filed 10/17/2013 04:59:09 PM ET

RECEIVED, 10/17/2013 17:03:35, Thomas D. Hall, Clerk, Supreme Court

IN THE SUPREME COUR[illegible] OF FLORIDA

TONEY DERON DAVIS,
Appellant,

v.

STATE OF FLORIDA,
Appellee.

Case No. SC12-115

ORAL ARGUMENT TRANSPIRED 10/11/2013

NOTICE OF SUPPLEMENTAL AUTHORITY

Pursuant to Rule 9.225, Fla.R.App.P., in response to opposing counsel's rebuttal argument at oral argument on October 11, 2013, and as represented by an officer of the Court, undersigned files this Notice of Supplemental Authority containing two excerpts from the record on appeal in this case that pertain to ISSUE I, III, IV, & V claims.

At the oral argument on October 11, 2013, when discussing the timing of Defendant Davis' trial testimony that focused on Timothy Moore as the alternative suspect, undersigned, without qualification, argued that Defendant Davis waited until his trial testimony to initially identify Moore as the alternative suspect. In his rebuttal argument on October 11th, opposing counsel indicated that there was a State's pre-trial discovery response that indicated that Moore was the alternative suspect. Subsequent to the October 11th oral argument, undersigned re-reviewed portions of the

record on appeal, including the State's initial discovery response,[1] which, for the convenience of the court, is attached (R/I 31-33, Attachment A). As represented by an officer of the Court, undersigned also supplements with another document that he reviewed after the oral argument while pursuing this matter and that, to some degree, supports opposing counsel's position, that is, a State's Attorney's Office memorandum (PC-Supplemental Record/I 171-72, Attachment B). As such, undersigned apologizes to the Court for his incorrect statement at oral argument.

As qualification to the foregoing, the State's Attorney's Office memorandum also indicates that on the same day that Defendant Davis named Moore as a suspect, he called Gwen Cunningham earlier and did not name Moore as a suspect (PC-Supplemental Record/I 172, Attachment B) and the memorandum also includes a note that Ms. Cunningham indicated that Defendant Davis intended to "lay the blame for this on Thomas Moore" (PC-Supplemental Record/I 173, Attachment B, quoting memorandum).

Concerning, and having considered, the discovery response and memorandum, the State adheres to its briefed arguments (See Answer Brief pp. 49-55, 78-83, 87-88, 90-92), including those concerning the belated nature of Davis blaming another person for the murder and its inconsequential effect on the related sub-claims (See Answer Brief at 54-55, 80-83, 87-88, 91-92).

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[1] Several discovery responses, including the one discussed here, can be found in the postconviction record at PC/IV 618-32.

With respect to the condom wrapper that was found in Ms. Cunningham's bedroom on December 14, 1992 (approximately five days after the child was taken to the hospital), Ms. Cunningham had reported the finding of that condom wrapper to Detective Hellem, who in turn had an evidence technician, M. J. Sams, go by and retrieve and photograph the location of the condom wrapper. Ms. Cunningham had represented at that time that she and Toney Davis did not use condoms, the implication being that the defendant had attempted to use a condom at the time of the apparent attack on the victim on December 9th. In a later discussion with Ms. Cunningham, she stated that she did have condoms in her apartment, in a closet in her bedroom, which she had apparently been using in the past, either with the defendant or some other man. Therefore, the significance of the finding of the condom wrapper is questionable as far as this case is concerned.

With regard to the victim's relationship with the defendant, Ms. Cunningham stated that the victim would call the defendant "Daddy", that the victim apparently like the defendant, and did not seem to be afraid of him. These comments of Ms. Cunningham are interesting in view of her comment that the victim did not seem to want to go to the defendant on the evening of Tuesday, December 8th.

In one of my early conversations with Ms. Cunningham, referring to her telephone conversations with the defendant, the evening or so following his arrest, I recall Ms. Cunningham stating that the defendant told her that he was going to lay the blame for this on Thomas Moore, the inference clearly being that the defendant was going to, in effect, fabricate or simply make up this lie about Thomas Moore being responsible for the injuries and death of the victim. I am not sure whether Ms. Cunningham will be willing to re-state those comments of the defendant in that way, in view of her uncertainty as to who was responsible for the injury and death of her child. Ms. Cunningham appears reluctant to let go of the defendant and believe in her heart that the defendant committed these crimes.

SVB/par