IN THE SUPREME COURT OF THE STATE OF NEVADA

COLE DUANE ENGELSON

Appellant,

vs.

THE STATE OF NEVADA

Respondent.

Docket No. 82691

Appeal From A Judgment of Conviction (Jury Trial)
Fifth Judicial District Court
The Honorable Robert Lane, District JudgeDistrict
Court No. CR9226

APPELLANT'S APPENDIX VOLUME 18 OF 22

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IN THE FIFTH JUDICIAL DISTRICT COURT OF THE STATE OF NEVADA

IN AND FOR THE COUNTY OF NYE

THE HONORABLE ROBERT W. LANE, DISTRICT JUDGE

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THE STATE OF NEVADA, Plaintiff, vs. COLE D. ENGELSON, Defendant.	TRANSCRIPT OF PROCEEDINGS JURY TRIAL - DAY 7 NOVEMBER 13, 2020 9:15 A.M. PAHRUMP, NEVADA

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PAHRUMP, NYE COUNTY, NEVADA, FRIDAY, NOVEMBER 13, 2020

9:15 A.M.

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P R O C E E D I N G S

(Whereupon State's Proposed Exhibit Nos. 50, 51A and 51B, 53, 62A and 62B, and 62D-H are marked prior to commencement of proceedings.)

THE BAILIFF: All rise.

THE COURT: Thank you. Good morning. Please be seated.

MR. VITTO: Thank you, Your Honor. Good morning.

MR. ARABIA: Good morning, Your Honor.

THE COURT: Seems like you were just here, doesn't it? Welcome back. Put me to work as soon as I walk in. All right.

This is Day 7. We're back in the presence of our 15 jurors. State's still on their case in chief. They have a new witness they're going to call today; so we're going to ask Jamele to go make a couple of copies of this. Sorry. And then I will read it and decide whether or not to pass it along. Lengthy and very good handwriting.

Would you like to call your first witness today, Mr. Arabia?

MR. ARABIA: Good morning, Your Honor. The State calls Dr. Ahmed Moussa.

THE COURT: Thank you.

Face madam clerk. Raise your right hand, please, sir.

Whereupon,

DR. AHMED MOUSSA,

called as a witness on behalf of the State, was sworn and testified as follows:

THE WITNESS: I swear and affirm.

THE COURT: Good morning. Thank you for coming in. We're hoping the jury can see your face and hear your words, if you can take your mask down. However, if you're worried about Covid, you don't have to.

THE WITNESS: That's fine.

THE COURT: All right. Very good.

Oh, I'm sorry, sir. Have a seat, and the attorneys are going to take turns asking you questions.

Mr. Arabia.

/ / /

/ / /

DIRECT EXAMINATION

BY MR. ARABIA:

Q. Good morning, Doctor. Could you please state your name and spell your last name for the record -- or actually, if you could spell both names for the record, please.

A. Good morning. My name Ahmed Moussa. The spelling of my first name A-h-m-e-d, last name Moussa, M-o-u-s-s-a.

Q. Thank you, sir. And could you please tell us what is your occupation is, what you do for a living?

A. I'm an emergency room physician. I practice in Georgia. All right. I carry a license, medical license in Georgia. I'm a family medicine doctor, board certified in family medicine 2012. I have an extra fellowship in emergency medicine from the University of Alabama.

Q. It would fair to say then that right now primarily you're an ER doctor?

A. I'm an ER physician.

Q. Okay. And were you -- was that your occupation on July 15th of 2017?

A. Actually, on July 15th, I was an ER physician at Desert View Hospital in Pahrump.

Q. All right. Before we delve into the particulars of this case, Doctor, please -- you were going through your background -- please tell me a little bit more about your journey, how you ended up in this profession, and your educational background and your training and whatnot, please.

A. So I graduated a medical degree in surgery from University of Cairo Medical School in 1999. I spent a year of internship at the University of Cairo in Egypt. All right. And then I did my master's in Egypt in urology and general surgery. And then I went to New Zealand for five years where I worked as a physician for five years.

I was sent from New Zealand to the U.S. here for extra postgraduate degree in University of Alabama at Birmingham in Tuscaloosa, Alabama. I finished my residency in 2010, and I did an extra year of fellowship in American medicine from 2010 to 2011.

Since then, I've been working as an ER physician in the University in Alabama. And then I moved to Georgia in 2013 where I've been practicing as an ER physician. Starting from 2016, I started working here in Nevada in Sunrise Hospital and in Pahrump at Desert View Hospital as an ER physician. Because of the corona, I settled back in Georgia

around, you know, beginning of this year. And I've been practicing there full-time at the moment.

Q. Thank you, Doctor. I would like to go back now to July 15th of 2017, just to set the table, at 7:30, eight o'clock that evening, what were you doing?

A. So basically, our shifts in Desert View Hospital starts -- it's a 12-hour shift -- from 6:00 to 6:00, from 6:00 a.m. to 6:00 p.m., from 6:00 p.m. to 6:00 a.m. I was doing the night shift; so I started my shift around 6:00 p.m.

Just an hour after my shift, we got on the radio that there is an ambulance coming with a cardiac arrest, pediatric cardiac arrest. So we -- that's what we got the information that they were not able to intubate her, and that there were no pulse. But they were they were bagging her of inflation until they come in here. So we prepared the trauma room, Trauma One Room, for the cardiac arrest until it came in around 7:34.

Q. Just so the jury is clear, this was Yessenia Camp?

A. I'm sorry?

Q. This was Yessenia Camp?

A. Yessenia Camp, yes.

Q. Okay. Please continue, sir.

A. All right. So basically we prepared the Trauma One Bay. The rooms, they have four trauma rooms, so we prepared the room for the arrest. We prepared the pediatric, because it's a special scenario with the pediatrics. So we have to get the pediatric rod so we can measure the amount of medication and tubes and all of the procedure that we're going to go, because kids are different than adults in this. All right. And we got the respiratory team and the nurses and myself, we were at bedside when she arrived in.

Q. All right. So at some point that child was brought in?

A. Yes.

Q. And can you please describe -- before we get to any treatment that was given, describe what your -- as an ER doctor, what your impression was when you first saw the child.

A. So basically the child was brought in by the ambulance. All right. And once she arrived, we conducted the, what we call it in our profession, primary survey. So in this situation, we do something called ACLS protocol, primary survey, secondary survey. Primary survey briefly discussed the airway, breathing, circulation -- A, B, C, D, E, F, so airway,

breathing, circulation, decontamination, and exposure, all right, and look for any kind of associated trauma or injuries that can be reversed.

The patient was not showing any signs of breathing. They were bagging her, and there was no pulse on the monitor, complete asystole, what we call in our occupation asystole. So based on the protocol, we started with the airway; all right. So I inserted a ET tube, an endotracheal tube to help her breathe, all right, through the bagging or through the ventilator. So we inserted it successfully. All right.

The end is we were not able to get a peripheral IV line. So there was an intraosseous line, which is an alternative to the IV line to administer medication. So there was an intraosseous line. There was no signs of circulation so we started high quality CPR concomitantly with intubation. But prior to arrival, the paramedics, they were able to give her a couple of epi's, which is a medication that helps the heart to restart again.

Q. Was epinephrine?

A. Epinephrine; that's right. We call it "epi" for short. So they were able to give two doses of those. So when she arrived, we continued the

cycle. But when we checked her blood sugar was a little bit elevated 116, which is not unusual in a cardiac arrest situation even for nondiabetic patients.

Q. Doctor, I apologize. I want to jump in here and ask you something. During this process, were compressions being done?

A. Yes. High quality CPR were done throughout the process, yes, until we pronounced.

Q. Also, I wasn't sure whether or not you said asystole; and if you did, can you just tell us what that means?

A. So basically, asystole or pulseless electrical activity means that there is no identifiable rhythm on the monitor for the EKG which records the electricity coming from the heart. So she was showing no signs of electrical activity. A certain period of time, there was a very minor, what we call pulseless electrical activity. Because of the medication we give, sometimes it gives a little bit of a glimpse. All right. But there is no identified rhythm on the monitor, and there was no associated heartbeat with it.

Q. What you described with the medication calling it a little blip, that wouldn't be a sign of

her --

A. No. That would not be a sign of lividity at all. All right. It's just very temporary. But there was not associated any signs of circulation or heartbeat.

Q. Let me ask you this: You've discussed some of the measures that you've took. Would it be fair to say that you might have gone beyond what would normally be done to try to bring Yessenia back?

A. Yes. So in a situation like this, you know, a trauma situation with a young kid healthy and no past medical history; all right, you know, usually, you know, we don't go through all the cycles. So the paramedics gives two cycles. I give about another five cycles of medication, which is beyond what we usually do in our ACLS protocol because she's a child, and I like to give her that chance if there is a chance to revive her back. All right. So definitely we went beyond that recommended, all right, in cardiac arrest situations just because of considering the situation -- she's a healthy, young, innocent girl that we want to give her more than we can, you know, like an --

Q. You wanted to do everything you could --

A. Yes, exactly. Just to give her --

Q. -- and then some?

A. Yes, basically. And we were waiting just for a glimpse of, you know, heartbeat or circulation, and helicopter was waiting to transfer her to a higher trauma center in Las Vegas.

Q. About how long would you say ER treatment went on?

A. The ER treatment went for about 30 minutes, like about 28, 30 minutes, all right, where we of course intubated her, high quality CPR. We administered different cycles of medications, including epinephrine, atropine, bicarb, and calcium just to try to at least to revive if there is a reversible cause of death.

Q. And everyone knows the answer to this, but I'm going to ask anyway. Were your efforts successful?

A. It was unsuccessful. Sadly, it was unsuccessful at the end, and there was not any signs of circulation or breathing obtained by the patient.

Q. At some point did you make the, what I'm sure would have been a very difficult decision to pronounce Yessenia dead?

A. It was a very emotional situation even with the nurses and the technicians around us just to

pronounce her, and I remember some of them were actually crying because that situation was emotional. But at that time there was really no hope in continuing administering medication or continuing ACLS.

Q. You are the ER doctor, so you have to make that call?

A. I have to.

Q. Okay. Do you remember about what time on the 15th you made that call?

A. Around eight o'clock.

Q. About eight o'clock?

A. Yeah.

Q. Okay. And, Doctor, you've been an ER physician for sometime; so I want to ask you a few additional questions. What would you say, based on your treatment of the patient, was likely to be the cause of death?

A. So definitely it's a cardiopulmonary arrest, all right, failure or basically. From what I've examined, from what I've seen, most likely it's due to trauma, because there was a lot of signs of trauma on the patient.

Q. Doctor, please elaborate when you say trauma; what specifically are you referring to?

A. So basically, the patient was brought in completely unclothed, all right, and there was different signs of trauma on the patient's body. There was a lot of bruises, contusions, even on the front part. As I mentioned before, during our protocol, we do a primary survey. Of course, we didn't go to a second survey, because we were not able to initiate heartbeat or breathing. But after we pronounced her, when we were turning her to the side, all right, there was a significant amount of trauma to the head, back of the head, back of the neck, the whole back, the buttocks; in addition to the signs of trauma that was on the front part around the face, chin, nose, chest, and thighs.

Q. Doctor, would you say that some of those injuries at least, based on your experience, would have been caused by blunt force trauma?

A. Yeah. So the kind of trauma we usually meet with is either a penetrating trauma or blunt trauma. It seems like these injuries were secondly to a blunt, forceful trauma.

Q. Doctor, would you say that what you saw with Yessenia would be consistent with child abuse?

A. The amount and the degree and the spread of, you know, bruises and contusions to her,

definitely I would say there was evidence of child abuse.

Q. And based on your lengthy experience as an ER physician, did you see anything on Yessenia that struck you as possibly being bite marks?

A. You know, bites are very interesting; so some of them were circular can denote some bite injuries.

Q. Did you notice any curvilinear or half moon type --

A. That's right.

Q. -- bruises?

A. That's right, sir.

Q. Yes?

A. Yes.

MR. ARABIA: Your Honor, Court's indulgence for a moment?

THE COURT: Yes.

MR. ARABIA: Thank you.

Q. (By Mr. Arabia) Doctor, did you see anything while you were treating Yessenia that would be consistent with or would make you think that there might have been bleeding or swelling in the brain?

A. Yes, sir. So part of the primary surveys, we examine, we do a quick survey for neurological

function, and she had dilated fixed pupil on examination, all right. And this usually denotes a kind of severe insult to the brain or spinal cord. There was also a big hematoma and bruises to the back of the head and neck, which this is where the unprotected area of the brain goes in; all right. So this all denotes some definitely a severe insult to the central -- central and peripheral nervous system.

Q. Doctor, you testified that in your capacity as the ER physician, you made the very difficult decision to pronounce Yessenia dead.

A. That's right.

Q. And so I wanted to ask, after the pronouncement of death, at some point did Desert Valley (sic) surrender custody of Yessenia to a mortuary establishment?

A. Yeah. We released her to the mortuary, yes, sir.

Q. Would it be fair to say that at that point what happens is she's taken out of the hospital to another location?

A. That's right, sir.

MR. ARABIA: Court's indulgence, Your Honor?

THE COURT: Yes.

Q. (By Mr. Arabia) Doctor, I just want to clarify a couple of things. You mentioned a brain, a bleeding brain. So what I would like you to do or what I'm going to ask you is how does that fit into the overall situation here in the context of the trauma that she was experiencing and the cardiac arrest? And if you could, kind of tie together what in your view was a more serious problem for her, and how those three things relate?

A. Sure. So basically, during our resuscitation for a cardiac arrest patient, we usually -- our goal is to establish breathing and circulation back to preserve the vital organs, namely the brain. So sometimes, you know, you have reversible causes, and sometimes you have irreversible causes. So sometimes reversible causes is like maybe infection or a kind of obstruction or foreign bodies or different scenarios that you can reverse -- hypothermia, hyperthermia, drowning, aspiration. All this can be reversible, and this is what our attempts at the resuscitation retrieves.

But sometimes the causes are irreversible for the cardiac arrest, which is usually the brain bleed. So from this scenario, I have seen she's a young healthy kid, and kids are very known to be

resilient; all right. Once you reverse the cause of death, they bounce right back. And that's what we were all hoping for.

But based on the presentation and the extent of injuries on this patient, it seemed like her injury was beyond repair. It's not reversible. It's irreversible; all right. And given the fixed dilated pupils, lack of reflexes, and the injuries on the back of her head and neck, the irreversible cause seems to be a severe brain insult which is a different kind of bleed, either extracranial or in the meninges or around the brain. And this cannot be reversed in a situation like this.

Q. All right.

MR. ARABIA: Your Honor, may I approach the witness, please?

THE COURT: Yes.

Q. (By Mr. Arabia) Doctor, I handed you what's been marked as State's Proposed Exhibit 53. Do you recognize that?

A. Yes, sir.

Q. And could you please tell the jury what that is?

A. So basically, this is the ER records for the patient coming in, starting from the personal

information, demographics, phone number, next of kin, age, date of birth, of course the treating physician and some of the treating team including nurses. There were also progress notes recorded by me through the Scribe and through the other nurses running the code at the time. You will find the physical examination, progress of events going from the moment she arrived, description of the injuries, what we have done during the code including timings, and the time of death at that moment too.

There was also some charts about her graph regarding her height, length, head circumference, all of the, you know, the relevant data, clinical data about the patient. There was also a description of the injuries; a physical exams; and some pictures about, you know, the extent of injuries around her, some description; and some nurses' notes about the medication given. There was intubation, respiratory therapist's notes; and some, you know, legal papers about the Consent For Treatment and --

Q. Doctor, this question is going to sound silly after your testimony, but have you reviewed that?

A. Yes, of course I have a copy of this.

Q. And, Doctor, is it an accurate rendering?

A. It's an accurate rendering.

MR. ARABIA: Thank you.

Your Honor, move to admit.

MS. BOSKOVICH: No objection.

THE COURT: It's admitted. What was that exhibit number?

MR. ARABIA: 53 --

THE COURT: Thank you, sir.

MR. ARABIA: -- State's Proposed.

(Whereupon State's Exhibit No. 53 is admitted into evidence.)

MR. ARABIA: Thank you, Doctor.

No further questions at this point, Your Honor.

THE COURT: All right.

Counsel?

MS. BOSKOVICH: Thank you, Your Honor.

CROSS-EXAMINATION

BY MS. BOSKOVICH:

Q. Good morning, Doctor?

A. Good morning.

Q. A couple of follow-up questions. So you testified that you had a call come in regarding the three-year-old. Were you provided any other information, anything from the paramedics, prior to

her arrival?

A. There was some -- first of all, when we get the radio, we get like three years old, cardiac arrest coming in, estimated time of arrival, the other information that we were not able to intubate because of the situation. They said that there was some domestic issues; they didn't clarify. But they were bagging her; and they already inserted an intraosseous line, all right, which is a line to administer medication; and they just provided us with estimated time of arrival. That's it.

Q. Okay. And they provided all of that information to you before you started treatment on her?

A. Before she arrived there.

Q. Before she arrived; okay. And once she gets there, you're filled in on what kind of life-saving measures the ambulance technicians took?

A. That's right. While we're moving her from her gurney to our gurney, we usually ask them to give us the bullet and repeat what we give her -- "two cycles of epi," and we were bagging her. There was no pulse on the monitor during that time.

Q. And did you go out to the ambulance and meet them?

A. You know, Pahrump is a very small hospital. So once they come in, the trauma room is just on the right side. So we were waiting in the corridor, and we took her right away to the trauma bay area.

Q. Okay. And you noticed a lot of bruising on her body; correct?

A. That's right.

Q. There were a lot of bruising to her buttocks?

A. Yes. There was a huge one on the buttocks and the back.

Q. And those bruises were actually noted to be in various stages of healing; correct?

A. Yes, some of them, but the significant ones were recent.

Q. And there were also bruises to her face and forehead?

A. That's right, ma'am.

Q. And those were also noted to be in various stages of healing?

A. The one on the back of the head and neck and around the face were recent.

Q. But there were some that were noted to be in various stages of healing?

A. The body was a little bit -- the one that

you can tell they were a little bit in different stages of healing, but the one around the head and neck area were quite recently.

MS. BOSKOVICH: Court's indulgence, Your Honor.

THE COURT: Yes.

MS. BOSKOVICH: No further questions, Your Honor.

THE COURT: Thank you.

MR. ARABIA: Court's indulgence, Your Honor.

THE COURT: Yes.

MR. ARABIA: Thank you, Your Honor. Nothing further.

THE COURT: Can he be permanently excused?

MR. ARABIA: No. But it's very, very, very unlikely that that would be an issue, but just in case for the record.

THE COURT: Thank you, Doctor. Don't talk about the case with anyone but the attorneys. He said there's a minute chance he may call you back again; unlikely. Thank you for coming in to testify.

THE WITNESS: Thank you very much.

MR. VITTO: Terri Haddix.

Please step up to the witness chair and be

sworn.

THE BAILIFF: Would you please face madam clerk and raise your right hand?

Whereupon,

TERRI HADDIX MD,

called as a witness on behalf of the State, was sworn and testified as follows:

THE WITNESS: Yes, ma'am, I do.

THE COURT: We would like the jury to be able to see your face and hear your words, but if you're nervous about Covid, you can keep the mask on.

THE WITNESS: I will see how it works with the mask.

THE COURT: Our jurors are spread throughout the courtroom. The last one is in the back of the room; that's who you'll be talking to.

THE WITNESS: Got it. Thank you.

THE COURT: Thank you. Have a seat.

DIRECT EXAMINATION

BY MR. VITTO:

Q. Please state your name for the record spelling your last name.

A. Terri Haddix, H-a-d-d-i-x, as in "X-ray."

Q. What is your occupation, ma'am?

A. I'm a forensic pathologist and

neuropathologist.

Q. And where do you currently practice?

A. I work for a private independent crime laboratory in the San Francisco Bay area called Forensic Analytical Crime Lab.

Q. And exactly in what capacity?

A. I work there as a forensic pathologist, a neuropathologist, and I'm also considered the technical director of the laboratory.

Q. How long have you been so employed?

A. Nearly 15 years with this company.

Q. Doctor, tell us about your journey. How did you get to be where you are today?

A. I graduated from medical school in 1987 from the University of Colorado School of Medicine. I completed a couple of years of general surgery residency before I started my pathology training. My pathology training was at the University of Washington in Seattle. There I did what is called an anatomic pathology training. I continued on in subspecialty training in an area called forensic pathology, also in Seattle, Washington, at the King County Medical Examiner's Office.

I practiced as a forensic pathologist for several years. And then in the early 2000s, 2003

specifically, I did another subspecialty training in neuropathology at Stanford University Medical Center.

Q. Now, Doctor, you're here today to testify regarding your work on this case. How did that come about that you became involved?

A. I had been performing examinations of the brain, the dura, and the spinal cord for the Clark County Coroner's Office for sometime, and I was contacted in July of 2017 by Dr. Roquero after he had performed this autopsy inquiring if I would be available to do this examination.

A couple of months later, I believe it was in September of 2017, I then subsequently received the brain, the dura, and the spinal cord for examination.

Q. All right. Now, upon receiving those items, what did you do?

A. I basically examined them. And in the course of doing that examination, what I do is look at the brain, the dura, and the spinal cord separately. I look at them from the outside of them, and I take a lot of photographs of what I see, not just the outside. But then when I want to see what's contained within the brain for instance, I will make a series of cuts. I then take photographs along the way at each of those different steps.

After I do that photography and the examination, I then decide, predicated upon some published standards, what areas of those tissues I wish to look at microscopically. So I take small samples. One can't examine every single piece of a brain, for instance. I would still be looking at my very first brain if that were the case. So one has to look at representative areas or things that look of interest in the brain.

Those pieces of tissue I then put through a processor, and glass slides are made that I can look at under a microscope. So the very first part, that is just looking at it with my naked eye is called a "gross examination." And then when I get the glass slides, that's called the "microscopic examination."

After I get the microscopic slides done, I will look at those, I'll assemble that and think about it associated with what I saw in the gross examine, decide if I need to do anything else. Sometimes I have to do what we would call "special stains," which means something above and beyond just the routine staining.

After doing all of that, I then put together a report that I author, I sign off on. I return that to the consulting pathologist, who is

Dr. Roquero in this case, along with the remnants of the tissues, the microscopic slides, and everything else associated with the case.

Q. Okay. And how many times have you done that in your career?

A. Privately, in terms of performing these types of brain examinations, it might be somewhere in the vicinity of about 50 times. However, previously I stayed on after I completed my fellowship at Stanford, and I did this on a regular basis there. Many, many times a year, we received forensic consults. And up until the time that I left in 2012, I was the person that was doing those.

Q. So let me show you State's Proposed Exhibit 50. Take your time, as much time as you need. Let me know when you've had opportunity to review that, and I will ask you some questions about it.

A. Yes.

Q. You recognize that?

A. I do.

Q. How do you recognize that?

A. I recognize this because this is a report which I personally generated for this case in particular. My signature is on the very last page, and I make a habit of initialing all of the individual

pages. And so all of my initials appear on pages 1 through 4.

Q. Okay. So that's your report, and that report includes what you did, what you found, what you discovered, and your opinions regarding -- opinions and conclusions regarding what you saw; is that correct?

A. Yes. It also includes a brief clinical history, which I was provided as well.

Q. All right.

MR. VITTO: Your Honor, I request that this exhibit be admitted into evidence.

MR. MARTINEZ: No objection, Your Honor.

THE COURT: Admitted.

(Whereupon State's Exhibit No. 50 is admitted into evidence.)

Q. (By Mr. Vitto) Doctor, with regard to the injury you observed, what can you tell us about the time between this injury and death?

A. Well, there were various injuries which I observed and various observations I made with regards to the brain. But there was one really fundamental finding that should have been present had this child survived beyond about a three-hour time interval, and that wasn't present. So my estimate would be that she

died within three hours of when this injury was sustained.

Q. And do you have an opinion regarding -- well, let me ask you this: You were able to observe swelling; is that correct?

A. That's right.

Q. But you saw a complete lack of herniation?

A. Yes. And herniation of the brain is like a hernia anywhere else in the body. It's basically tissue that should live -- should normally reside in one area moved to another area. And this herniation occurs when there have been increased pressure due to swelling or some type of mass that causes that to occur.

So if swelling goes on long enough and is severe enough, you will get herniation. In this case we just had swelling.

Q. And how does that play into your three-hour window?

A. The presence of swelling indicates to me that she did not die, the child did not die immediately after this injury was sustained, that there was a period of survival. It's a little bit difficult to say exactly how long that period of survival is, but it's probably well into the realm of,

say, 15 or 30 minutes kind of at a minimum.

Q. Now, when you say that the initial injury was survived, does that mean that she was up running around and playing?

A. No. By that I mean that her heart was still beating. So in other words, her body, her brain was responding to this injury. And the brain has a relatively limited repertoire in terms of how it responds to certain insults, in fact, to a number of insults, and one of those is swelling. The swelling is relatively nonspecific, but it is a marker that there was survival after that insult, the injury was sustained.

Q. And survival simply meaning that for technical purposes the heart was still beating?

A. Yes.

Q. You also noticed an absence of beta-APP staining. Can you explain what that is and what it means?

A. Sure. So this is a little bit complicated. Let me go back and step back a little bit and explain to you a little bit of anatomy.

Within the brain, there's all sorts of different type of cells that make up the brain, but one type of cell is the nerve cell. The other cells

actually support the nerve cells and do other things as well. But the nerve cell has a structure that's called the body of the cell in that it contains the nucleus where all of the DNA lives.

Now, there are processes, which means things that just branch off of that body of the neurons, including long structures that are called "axons"; that's a-x-o-n. Now, these axons can travel variable distances. I'm showing something like a couple feet long; very few are actually that long. They are relatively long.

Now, in those axons, material, fluids, proteins flow up and down the length of those axons. Now, if that axon is perturbed in some fashion -- now, it can be due to deprivation of oxygen. It can be due to trauma. It can be due to some metabolic process. It can be due to a bunch of different things -- but that flow up and down that axon stops. When that stops, proteins that are present normally within that axon start to kind of clump together, and you can see those microscopically.

And they're particularly well able to be seen if you use some special types of staining techniques. So the beta-APP, which you're talking about, the very -- the long word for that is

beta-amyloid precursor protein -- in any case, somebody made antibodies to that protein; okay. Those antibodies, when we apply it onto the tissue, can identify when that protein is starting to glom together, sort of stick together.

Now, we're able to visualize that in the microscope, and when we see that, we know that that's first generally reported to appear -- different people have different time frames, but three hours is one that has been frequently reported. Some people report that it's even a shorter period of time than that. Therefore, when I mentioned to you earlier that I thought the child had died in less than three hours, it's predicated upon the fact that I don't see this type of staining. Yet, there are injuries and forces that we know to have been applied to this child's head and to the brain where you would expect to see these types of changes, yet they weren't there.

Q. So the absence confirms your finding, which is consistent with the lack of herniation, as far as your time frame is concerned?

A. The lack of herniation to me indicates that the swelling process did not go on for a protracted period of time. Similarly, she did not live long enough for the beta-APP staining to be positive.

Q. Got you. And you mentioned a couple of time different injuries. How many separate and distinct brain injuries did you see?

A. Well, there were a few things that I saw. There were areas of hemorrhage in multiple areas around the brain. I've made reference to a structure called the "dura" -- that's d-u-r-a -- and that's a thick lining that covers the entirety of the brain and spinal cord. There were areas of bleeding on the outside of the dura which we would call "epidural" -- e-p-i- dural. There was bleeding beneath the dura, which is called "subdural" -- s-u-b- dural. And then there was bleeding that was associated very intimately with the surface of the brain. And that involves an entirely different layer called the "arachnoid," like a spider, a-r-a-c-h-n-o-i-d. And there was bleeding in that area beneath that membrane. There were also some very tiny hemorrhages that were only visible microscopically into the brain itself.

Q. The injury you observed, would you characterize that as a substantial injury?

A. Yes. I mean these are substantial injuries in so far as we have bleeding in multiple layers around the brain and within the brain. It's not normal; it is not a normal finding to have blood in

those locations.

Q. And this injury to Yessenia, this didn't happen the day before she died, did it?

A. No. Predicated upon looking at these things microscopically, no, I don't believe it happened the day before she died. And furthermore, these injuries she would have been symptomatic from them. Having blood in these different locations, let alone the skull fracture, which I personally didn't see but it was reported to me, those would have been things that she would have been definitely symptomatic from, you know.

And the type of symptoms certainly is headache. I would absolutely expect her to have a headache. It's not uncommon with people who have these types of injuries, they will be nauseous, they will just be lethargic, they just generally won't feel well. And that's assuming that they're conscious.

Q. Okay. So let's talk about symptoms for a second then. Symptoms of brain bleeding, brain swelling are going to be a child being limp, nonresponsive, and unconscious?

A. Well, that's certainly at one extreme, yes.

Q. And then the other extreme?

A. It can be lesser symptoms.

Q. I'm sorry. Go ahead.

A. Pardon me. It can be lesser symptoms than that as well too.

Q. Like a headache?

A. Maybe a headache. May not want to move around. Because blood in these areas is very irritating, and if you are trying to move your head -- you know, when you move your head, you do jostle your brain a little bit, and that's very irritating. And so the person generally isn't going to want to move around a great deal and may not be capable of moving around a great deal.

Q. Not going to be really happy going to breakfast, for instance?

A. Yeah. I mean, people with these types of head injuries will frequently be nauseous or vomiting, so it would be difficult to believe someone who had these injuries and want to eat.

Q. Now, without medical -- well, let me go in a different area. Is there a vicious cycle, so to speak, of a brain needing oxygen?

A. Yes. So when the brain ends up being deprived of oxygen -- for whatever reason it is, whether it's because the blood flow to it is too low or the blood that's getting to it doesn't contain

enough oxygen -- when that happens, like I said, the brain has this relatively limited repertoire of how it behaves. That type of insult, the deprivation of oxygen, is one of the things that will start the brain to swell. Unfortunately, when the brain starts to swell, that starts to put pressure and compresses blood vessels that would normally be delivering blood and oxygen to the brain, which then leads to more swelling. And so then it ends up being very circular and a rather vicious circle.

Q. And the reason Yessenia died was because of the injury to her brain?

A. That's my opinion, yes.

Q. And, Doctor, I believe that you prepared a slideshow to help the jury understand what it is that you saw; is that correct?

A. That's right.

MR. VITTO: Your Honor, without objection from the Defense -- well, let me get them -- they're marked. I would like to see if you can identify them, and we'll go from there.

(Showing Defense Counsel the exhibits.)

Q. (By Mr. Vitto) Showing you State's Proposed Exhibits 51A and B. Let me ask you if you recognize those.

A. Yes, I do.

Q. And how do you recognize those?

A. These are enlargements of some photographs I took during the course of my examine of the brain, dura, and spinal cord. And there are also some images here which were taken from standard pathology, actually anatomy texts to better demonstrate, hopefully, where these injuries are located, these different areas where bleeding have occurred.

Q. And would those photographs and the PowerPoint presentation that you created help you explain your testimony to the jury so that they can see it?

A. I think it would, yes.

MR. VITTO: Your Honor, I request that these exhibits be admitted into evidence and published at this time.

MR. MARTINEZ: No objection, Your Honor.

THE COURT: Admitted.

MR. VITTO: Thank you, Your Honor.

(Whereupon State's Exhibit Nos. 51A and 51B are admitted into evidence.)

MR. VITTO: Your Honor, for the Court's edification -- and, Kassie, what number do you have there, 51B?

MS. WARD: Yeah.

MR. VITTO: 51B is a PowerPoint presentation admitted into evidence, created by this witness. 51A are a photographic representation of each of the slides that are on that PowerPoint presentation so that during deliberation, the jury would not have to watch what we're about to show. They will have the slides that they can look at that are represented during the presentation.

THE COURT: Thank you.

Q. (By Mr. Vitto) Doctor, it's going to come up on this screen and then the screen in front of you.

THE COURT: Could they demonstrate for you how you could write on that screen if you need to?

THE WITNESS: I've had occasion to deal with these. So hopefully I'll have it right.

Q. (By Mr. Vitto) Doctor, if you will, I will simply turn this over to you. Explain what you see, and then you can let us know when you're ready for the next slide.

A. You bet. Okay. So this very first slide is a photograph that I took. It's a standard photograph simply to document what I received and how it was received. And again, recognize that these are sample pictures that I took. This is not the totality

of the pictures. But this photograph in No. 1 basically shows our label, and you can see that there's three items there. Those are labels that are generated at our laboratory simply to show what in fact was received. And you may or may not be able to see it incredibly clearly, but those represent three separate tissues. There's the brain, there's the dura, and there's the spinal cord; and they all came to me in this one container, which was sealed. It was delivered to us under chain of custody by a FedEx which is our usual routine.

Next slide, please. Now, I'm going to be talking about some anatomy, and so this is a slide taken from "Grant's Atlas of Anatomy," which is a standard medical school reference and pathology reference. So this is an image, a cartoon, that is basically a cut, and so a cut had been made in the skull and the brain from basically separating the front from the back. So in other words, it would be coming down as I'm demonstrating here. So what I'm showing is with my hands basically coming from either shoulder up towards the top of my head. So it's more or less a cross section through the brain and through the skull. So if we start from outside in, there's multiple layers of the scalp. We'll just consider

that as one layer for our purposes here.

We next move in, and it's a very, very faint yellow off to the side, it is indicated that that is bone. So that's just the skull back there.

Now, the next three things we're going to be talking about are in the lower left-hand part of that image, and it says off to the side "mater," m-a-t-e-r. And that represents the three different layers of tissue that surround the brain. So the very outside one is the dura, which we've already made reference to. So the dura is right adjacent to the skull. So as we come in, scalp, skull, dura.

We then move down, and there are two layers right below the dura, but those are very intimately associated with the brain. So for instance, when the brain is removed from the skull, you can remove the brain and not remove the dura at the same time. You can't easily remove the brain and not remove the arachnoid and the pia mater. Those stay with the brain unless you go through some efforts to really try hard not to remove those. Collectively, the arachnoid and the pia are sometimes referred to as the lepto-, l-e-p-t-o, meninges, -m-e-n-i-n-g-e-s. That's to distinguish them from the dura. Dura is tough, "lepto" means delicate. So the pia and the arachnoid

are more delicate.

Now, we're going to be talking about epidural. Epidural will be between the skull and the dura. "Subdural" is beneath the dura, so beneath the dura but above the arachnoid. Then the subarachnoid hemorrhage is going to be below where the arachnoid is.

Okay. Next slide, please. Now, this ends up being a little bit dark, but this is what the outside surface of that dura looks like. So now the dura covers the top, it covers the base of the brain, it even covers all the way down to the spinal cord here. So what I'm looking at here is the top -- imagine if I had just taken the skull off and I look straight down on the dura, that's what I would be looking at is something like this. But the dura has been removed from the brain; so it's just free on its own here. Now, the darker areas -- it's kind of quite dark here, unfortunately -- but these darker areas that I have indicated off on the lower right-hand side to the epidural blood. That means that there are collections of blood in that area. Now, it wasn't a huge volume of blood; it was a relatively small amount. But that's still abnormal to be present.

Next, please.

Q. Can I ask you about that?
A. Certainly, please.
Q. What causes bloods to flow through a body?
A. Well, it's if the heart is beating, the blood will flow. After death, there can be some oozing from damaged vessels and things like that. But generally speaking, if you're going to get a substantial collection of blood, it's going to be as a consequence of a heart beating in the setting of the injury.
Q. So a small amount of blood can be attributable to the fact that the pump, the heart, has stopped beating?
A. That's one explanation.
Q. Thank you. Go ahead.
A. All right. So this next image we have here, if you envision what I've told you before that we were looking at basically the top of the dura. This photograph here shows you, if I flip the dura over and looked at the undersurface. So that undersurface would be that which is closest to the surface of the brain. So since it's under the dura, that's subdural hemorrhage.
And there's multiple areas. I tried to indicate some of these; I certainly didn't get all of

them. But the areas that show up as kind of this brownish and even darker areas of discoloration here, those all represent areas where there has been bleeding that still remains with the dura here. And the midline separating the right from the left is approximately horizontal across this image here.

Now, the amount of blood that I see here is not necessarily the amount of blood that the pathologist saw at the time of the autopsy. Fresh blood will frequently fall away from the dura. I mean even if you're handling it very, very carefully, it may just come off. So what I'm seeing here almost certainly doesn't represent the totality of the blood that the pathologist -- that Dr. Roquero saw.

Next slide, please. Okay. Now, I'm going to show you this sort of image a few times over with some modifications, but this is just to kind of help you better understand these collections of blood.

So we just finished talking about the subdural hemorrhage, bleeding beneath that dura. This also comes from the same anatomy textbook and again starts from outside going in. The word up on the right-hand side "calvaria," that's a fancy way of saying bone or skull.

So if we move down from the skull, that

yellow that we see there -- we can see it continuous mostly on the left-hand side -- that's the dura. Subdural, again, is bleeding beneath that dura; and if the volume of it is sufficient enough, it can push down onto the brain which is what's demonstrated here.

Next photograph, please. So now we're going to talk about a different type of bleeding that was present in several different areas in this case. Now, this image is looking at the top of the brain, just on the tabletop looking straight down on the top of this. The front surface of the brain is towards the left-hand part of the screen; the rear is towards the right-hand side. And I've indicated what's right and what's left here as well; okay.

Now in the red box there, what I'm trying to bracket there are areas where you're seeing more of this brownish reddish discoloration. And it goes basically from roughly halfway through the brain, all the way towards the front, and it continues actually down onto the front surface of the brain as well too.

This is not normal, this is blood that's called subarachnoid hemorrhage or subarachnoid blood. Now, this is blood that is intimately applied to the surface of the brain. So if you were to wipe your hand over the surface of the brain here, this blood

wouldn't be removed. Subdural blood, however, would be.

Now, you can see that there's a little bit other discolorations on the right and the left side if you're looking really closely there, and you'll see those in some other slides here.

So next slide, please. So to put this in a little bit of perspective with the cartoon here, the bleeding we're talking about now, starting from again outside in, it's beneath the skull, beneath the dura, but beneath that arachnoid lining, one of those linings that is intimately on the surface of the brain. And that's where it accumulates.

That subarachnoid hemorrhage can arise from a disruption in a vein. It can arise from a disruption from an artery. The subdural bleeding classically is thought to arise from a disruption of a vein. So just talking about different sources; they can arise for different reasons.

I'm sorry. Next slide, please. As promised, I indicated that there were also some subarachnoid hemorrhages that were found on the right and the left-hand side as well too. So this is a section -- this is a view of the brain from just the outside of the brain from the right side -- again, the

front is towards the right-hand side; the rear of the brain is to the left. What I've indicated in the red circle is a small collection. It's not thick, but it is nonetheless abnormal to have subarachnoid bleeding there. So that's the location of bleeding.

Next slide, please. Similarly, on the left-hand side, which is what's shown in this slide -- again, just for orientation, the front of the brain is towards the left, the back is towards the right. This is the left hemisphere, left half of the brain; and within the circle, I'm trying to demonstrate where there is some of this patchy, brownish reddish discoloration there. And that's subarachnoid hemorrhage again which is not normal.

Next slide, please. And then lastly, there were -- you recall that we talked about some epidural hemorrhage earlier. I showed that to you when we were looking at the outside of the dura there. There was also a small amount of it associated with the spinal cord. So I've indicated up here with a red circle. This is what the spinal cord -- and just to be clear, the spinal cord connects basically right at the base of the skull, all the way down to the length of the spine. And this is the totality; this is the entire length of the spinal cord in this case.

There is a small amount of hemorrhage located up in the cervical end. "Cervical" refers to the neck region, so it's way high up there. And that's what was found was a little bit of epidural hemorrhage there. That's not terrifically surprising in consideration of how the skull fracture was located and where it was located for there to be some epidural hemorrhage there. Epidural hemorrhage, 99.5 or more of the time, is associated with a skull fracture! There's very few other things that it's going to be associated with. So that actually makes sense that we would see that amount of hemorrhage in that region there.

I think that's it then.

Q. Thank you, Doctor. And I know we talked about cerebral edema without herniation. Did you also address the thin multifocal leptomeningeal hemorrhages; is that what we just went over?

A. Yes. That's -- the leptomeningeal, again, is the collective term used to describe those coverings that are very intimately associated with the brain. And those areas of bleeding, they were not thick by any means. But they're there, and that is abnormal.

Q. And that would also include the focal

microscopic intraparenchymal hemorrhages basis pontis and splenium?

A. No. Those are hemorrhages we did not see here. I didn't include any photographs of the microscopic appearances of those. But there were some very small hemorrhages. But again, that's not normal to find those there either.

Q. And what you saw that had happened internally had an external cause; is that correct?

A. You're talking about what I saw with the brain had an external cause; is that what you're saying? Just to be clear, sorry.

Q. Is this a brain aneurysm?

A. Oh, no.

Q. Now, I believe -- correct me if I'm wrong -- your report also addressed the spinal cord having recent hemorrhage around several cervical nerve roots and ganglia; is that correct?

A. Yes, microscopically, yes.

Q. Okay. So besides what we were able to see with the naked eye, you also did some microscopic examination that revealed other hemorrhage?

A. Yes.

Q. And I believe you determined that the bleeding was recent?

A. Yes. I didn't find any indication that there was an effort by the body to clean up any of these hemorrhages, and that's based upon certain microscopic criteria, and also one thing that we frequently look for is the presence of iron. Iron is derived when the red blood cells break down, and the hemoglobin in it liberates the iron molecules. I did iron stains on a number of these sections and found no indication of that.

Q. And the same with the iron staining that you do, you also are looking for -- and you have to help me out with this word -- neophils?

A. Oh, neutrophils.

Q. Neutrophils. Thank you.

A. So a neutrophil is a type of inflammatory cell within the body that can go to areas of injury. I'm not just looking only for that kind of stuff. I'm looking also for any indication of any reaction by the body. And there's different reactions in different areas of the body, and anyway long story short, I didn't see anything to suggest there had been anything that -- that the body was actually reacting to these hemorrhages in the form of trying to clean it up as it were. We know that the brain was reacting because there was swelling, but not to the extent that we

actually saw anything going on otherwise or any other time of reaction.

Q. So with all of the scientific testing you did, empirical science, hard science, these injuries were recent?

A. Yes.

Q. We've heard about, in regard to Yessenia, one eye being open or partially opened and another eye being closed. Does that have any significance to you from a neurological standpoint?

A. Yes.

Q. And what would be that significance?

A. Well, as we're all sitting here today, you're not even noticing when you're blinking your eyes. It's like a completely involuntary kind of thing. Obviously, it can be under voluntary control if you want, but generally it isn't. You're not thinking every time you blink your eye. Your body recognizes your globe is getting dry or something is happening, and so you'll naturally blink your eye.

Well, when you stop losing those type of basic sort of reflexes, that tells you there's something wrong. There's a reason why that's not happening; that your brain is not sensing that your eye is dry, for instance, or it no longer has the

ability to cause that blink action to occur itself. And so the fact that you have one lid open, one lid closed, to me that indicates that there's been a disconnect in terms of recognizing that the eye is becoming dry, the child no longer had the ability to blink on its own. So that indicates to me that there's a neurologic reason behind that.

MR. VITTO: Your Honor, I have no more questions of this witness at this time.

THE COURT: Thank you.

Counsel?

MR. MARTINEZ: Thank you, Judge.

CROSS-EXAMINATION

BY MR. MARTINEZ:

Q. Good morning, Dr. Haddix.

A. Good morning.

Q. Dr. Haddix, on your resume, I believe it lists that you've had some faculty positions; right?

A. That's correct.

Q. Does that mean that you were a professor or a teacher?

A. I did teach, yes. I never got to the level of full professor, but I think associate clinical professor is the highest I got at Stanford.

Q. Okay. And that does not surprise me,

because you've been wonderful. You've already answered most of the questions that I had for you?

A. Awesome.

Q. Now, on direct, you testified that when there is flesh blood on the brain, it could spill off; right?

A. You're talking about when the brain is being moved at autopsy, yes. I think that's what I was speaking in reference to, yes.

Q. Then I will clarify that. So is that only when it's being removed at autopsy, or can that blood spill off prior to the autopsy?

A. Well, if you're having, for instance, a collection of subdural blood that's located around the brain there, it's going to stay in that area until the dura has been breached in some fashion, which would be at the time of the autopsy.

Q. I understand.

A. So the subdural hemorrhage, for instance, can be around the brain, but it can also be in continuity around the spinal cord as well. But in terms of spilling off, in terms of loss of it, that's not going to happen unless the dura is breached.

Q. And now you said there could be the subdural hemorrhaging that had been in continuity with

the spinal cord?

A. Yes.

Q. Can you explain that a little bit more, what you mean by that?

A. Sure. So the subdural space -- and let's just leave it at that; there's controversy about it, but let's just leave it at that for the moment -- that that subdural compartment is continuity around the spinal cord, around the brain. So if you have, for instance, some blood that's up around the brain itself, through simple gravity you can have it end up -- some of it end up down around the spinal cord too.

Q. Could that same sort of process happen with epidural hemorrhaging?

A. No.

Q. And why not?

A. Because the dura is actually very tightly applied or more snugly applied, let's put it that way, to the surface of the skull. And in fact, it takes some effort to be able to actually pull that off actually away. So I've never seen that happen for epidural to do that.

Q. Okay. Now, you did notice epidural hemorrhaging on the spinal cord; right?

A. Right at the very top; that's correct.
Q. And now, when you did your microscopic examination of that portion, you noticed it on the -- on the nerve roots themselves; right?
A. There was some involving the nerve roots and then a structure that's called the ganglion, yes.
Q. And are those hemorrhages different than the epidural hemorrhage on the spinal cord, or is it just the same hemorrhage zoomed in?
A. No. Two different areas.
Q. Okay.
A. These nerve roots that we're talking about here, I didn't have a diagram of that. But if you envision the spinal cord, you know, basically kind of an oval-type structure if you're looking at it in cross sections, these nerve roots will kind of come off on the sides of it, and there's still -- portions of it are still contained within the dura. So actually, it's more subdural than it would be epidural.
Q. All right. I understand. On direct, you talked about some symptoms that could be present with this sort of head injury?
A. Yes.
Q. Are there any -- are there any physical

indicators that could be present during a head injury like this? So, for example, will there be darkening around the eyes in this sort of head injury?

A. Not necessarily with this type of head injury. There are certain types of head injuries where you can see black eyes. So a couple of different reasons I can think of that is if you have fractures of the delicate bones that surround the eyes, you can end up with black eyes. If one has actually an impact on the front part of the scalp, as that organizes and starts to settle, it can actually settle down beneath the eyes.

In terms of other physical findings associated with the site of a skull fracture, I would think that you may well have an area where you would feel a collection of blood or some type of bogginess and certainly at other sites of impact, the same may be present as well.

Q. The impact in this case, the skull fracture was to the back of the head. But on the slideshows, it looks like there was a lot of hemorrhaging on the front of the brain.

A. Yes. There was -- it was kind of mostly kind of in the midline here and a little bit on the sides.

Q. Okay. So the hemorrhaging to the brain doesn't happen at the site of impact?

A. Not necessarily. It can be variable. So in fact, there's an entity which is called, it's a coup-contrecoup mechanism. And that's c-o-u-p, hyphen, c-o-n-t-r-e-c-o-u-p, coup-contrecoup. So "coup" means at the site of the impact. "Contrecoup" is at the opposite side of the impact.

Now, there is a classic scenario. Let's use something really easy. Someone basically standing upright, falling backwards, hitting the back of their head on the ground. You may or may not necessarily end up with a skull fracture in that setting -- you could, certainly could. You could end up with an area of injury, particularly if you have a skull fracture in that area, but the larger degree of injury is going to be on the opposite side, so more towards the front. That's just kind of the way that the movement and the forces end up being transmitted.

But coup-contrecoup refers to what are called contusions of the brain. And a contusion of the brain is actually bleeding into the superficial layers of the brain. In this case what I saw was bleeding around the brain. I didn't see anything that looked to be contusions of the brain per se, though.

Q. All of the injuries that you noted in this case, all of the hemorrhaging on the brain, on the spinal cord, is it possible all of those injuries occurred from one major traumatic event?

A. Well, if I -- am I being limited to only what I observed, or what else I know about the case when I answer that question?

Q. Why don't you give me both answers.

A. So based upon what I observed, just simply if I'm only looking at the brain and all of those kinds of stuff, the answer is could it be from one? Yes, it could be from one. But it's my understanding, though, that there are multiple sites of impact on the scalp, and it's not going to be possible to say which one of those sites of impact produced which of the various injuries.

It may seem completely counterintuitive, but you can have, for instance -- and I'm speaking completely hypothetically here -- an impact on the right side of the head that might actually just show bleeding on the right side of the head. So there isn't this one to one correlation with an impact on the right, it must only have caused damage on the right. It can be in a number of different areas.

So I would say looking at things in

totality and that there are multiple sites of impact on the head, I can't tell you which one of these injuries necessarily correlates this with the various impacts with the exception of the skull fracture and the epidural hemorrhage. That's associated with the impact on the back side where the fracture is located.

MR. MARTINEZ: No further questions, Judge.

THE COURT: Counsel?

MR. VITTO: Yeah, yeah. I've got some follow-up.

REDIRECT EXAMINATION

BY MR. VITTO:

Q. Based on your training and experience, and you've got a lot of it, are you comfortable offering an opinion regarding whether shaking with an impact to the occipital region of the skull caused what you saw insofar as where the blood was seen?

A. In for what I've seen, shaking doesn't even have to be any complement of this whatsoever.

Q. And why is that?

A. Simply the impacts alone are sufficient to account for the findings that I have.

Q. All right. And let me show you -- are you familiar -- do you know Dr. Plowey?

A. I do. Our times overlapped at Stanford a

little bit.

Q. You're familiar with his work?

A. Yes, generally, yes.

Q. Are you familiar with his findings in this case?

A. Generally.

Q. All right. Let me show you -- see if I got an exhibit list here. Do you guys have an exhibit list handy? Looking for the Plowey's report and (inaudible). Plowey and Roquero.

49A, Sarah? 49A and 58A, and why don't you dig out for me -- how about some autopsy photos.

THE COURT: Anybody need a recess? All right. Very good.

Ladies and gentlemen, we're going to take a short recess. During this recess, it's your duty not to converse among yourselves or with anyone else on any subject connected with the trial. And don't read, watch, or listen to any report of or commentary on the trial. Don't form or express and opinion until it's submitted to you.

We'll meet back here in about ten minutes.

THE BAILIFF: All rise.

(A short recess is taken.)

THE BAILIFF: All rise.

THE COURT: Thank you. Please be seated. We're back in the presence of our 15 jurors. The State can continue with their redirect.

MR. VITTO: Thank you, Your Honor.

REDIRECT EXAMINATION (RESUMES)

BY MR. VITTO:

Q. Doctor, I'm going to want to show you some things here in a second, but let me touch on something first.

The injury that you saw to the brain, this was a little girl who was in dire straits. She was in -- she was potentially dying. Can you tell that from the brain?

A. Well, the fact that the brain is swelling, and that she lived for a period of time afterwards for the brain to actually swell, she was in a process that was what we call kind of an agonal or sort of terminal process.

Q. Okay. She was in a terminal process?

A. Yes.

Q. And when you talk about nausea, we're not talking about gagging on a tomato or gagging on mucus; right?

A. No. I mean centrally mediated by that, you know, by that I mean by the brain, that's a nausea

response. It's not I don't want to eat tomatoes, or I am coughing on a little bit of mucus in the airway. It's actually really quite involuntary, and it's just -- it's usually really quite significant. It's not just from a little transient, you know, I feel queasy kind of thing. It's usually a pretty dramatic feeling.

Q. Got it. And noticeable by those around her?

A. Well, in the form of she doesn't want to eat. Maybe she's even vomiting by that period of time. You know, maybe some other symptoms as well.

Q. All right. So you were asked about -- during cross-examination about what you observed being one traumatic event, I believe was the phrase that you were presented with. I'd like you to review, to the extent necessary -- I don't think it's going to require any amount of time -- 58A, 49A, and 49B through P as in Paul. I'd like you to look at those exhibits. Look up when you've had that opportunity, and I will ask you some questions.

A. (The witness complies.)

Okay. I've looked through these.

Q. All right. Now, with this information, some of which you were at least partially previously

aware; is that correct?

A. Yes.

Q. If all of this that you see before you and everything that you saw in the work that you personally did, if all of that was one traumatic event, is it obviously one traumatic event with multiple injuries, multiple impacts, and multiple trauma?

A. If all of this is happening at one time, I can't see a way that this is due to a solitary impact just due to the distribution of -- let's just only deal with the head. Due to the fact that there's multiple sites of impact on multiple planes of the face -- on the front, on the cheeks, on the back -- so if it's happening all at one time, or even if it's isn't happening all at one time, obviously there's multiple impacts in multiple areas.

MR. VITTO: I have nothing further.

THE COURT: Counsel?

RECROSS-EXAMINATION

BY MR. MARTINEZ:

Q. Doctor, do you know if all of this was happening at one time?

A. I don't know that necessarily all happened from what I can see that it happened at one time, but

there isn't anything that indicates that there's any age to at least what I'm seeing and what I understand I'm seeing also microscopically. So if it's separated by time, it's not separated by a particularly long period of time.

Q. And when we're talking about a particularly long period of time, we're talking about a time period of days; right?

A. No. Even hours; you can get some of the changes even within hours. So looking at things microscopically -- you know, the deposition of iron is something that would take days to appear, but some of the other cellular changes, you could see within days -- excuse me, within hours.

Q. So all of the injuries in the report that you observed happened within a matter of hours?

A. That's what appears to me.

MR. MARTINEZ: Okay. Nothing further, Judge.

THE COURT: Anything else?

MR. VITTO: Let me think for a second.

THE COURT: Whenever an attorney says "let me think for a second," I want to hit a button that plays the Jeopardy song, but the Supreme Court would frown on it.

MR. VITTO: One second, Judge.

THE COURT: Yes.

MR. VITTO: No more questions, Judge.

THE COURT: Doctor, there's a minute chance that we will ask you to come back and testify some more. Probably won't happen, but you never know what will happen in the course of the trial. So don't talk about the case with anyone but the two attorneys just in case we need you again.

THE WITNESS: You bet.

THE COURT: Thank you for testifying.

THE WITNESS: Thank you. There's all the exhibits there.

MR. VITTO: Thank you very much, Doctor.

Your Honor, my next witness was instructed to be here at eleven o'clock. Can you give me that opportunity to see if in fact he's here?

THE COURT: Thank you, sir.

MR. VITTO: Thank you.

(Mr. Vitto checks to see if his witness is available.)

MR. VITTO: Judge, all I can report is that he's currently not here. I'm assuming that he is on his way here. I'm surprised, frankly, that he's not here, but he's not. He's the last live witness that

we have.

THE COURT: So a short recess while you call and see if you can get him on the phone, or do you want to call it an early lunch and have him wait until 12:15?

MR. VITTO: As tempted as I am, I can only assume that his arrival is imminent.

THE COURT: All right. Short recess then.

MR. VITTO: Thank you, Judge.

THE COURT: We'll meet you back here in about ten minutes. I'm not going to read the admonition again, because you just heard it. But we'll take a ten-minute recess.

THE BAILIFF: All rise.

(A short recess is taken, and proceedings resume outside the presence.)

MR. MARTINEZ: Judge, we just figured this would be a good --

THE COURT: We're back on the record. We're outside the presence of the 15 jurors.

Counsel?

MR. MARTINEZ: Judge, when we started this morning, one of the jurors handed a couple of questions to us, and we thought this would be a good opportunity to address them since we're on a recess

and we can let the Court know what the State and I have decided and how to address them.

THE COURT: Very good.

MR. MARTINEZ: One question asked whether or not when Dwight went in the room he noticed if the shower was running. Ms. Boskovich did ask him that question, and his answer was either no or he did not notice. So we can relay that to the jurors.

THE COURT: Sure.

MR. MARTINEZ: The other one was is about the glasses that Mr. Engelson pointed to and told Detective Fernandes he was drinking out of. They asked whether or not those were taken into evidence and done forensic testing on. And the answer is no they were not.

THE COURT: It's common during the course of trials for us to get questions from the jurors that are real blatantly obvious and it's going to come out in the course of the trial, and sometimes we don't even pass those along, like "What's the name of the witness," or something. But these may be examples of that where you're going to let them know either with testimony or in closing argument and re-answer the question.

Anything else?

MR. ARABIA: So we're not addressing them? Is that --

MR. VITTO: I have no problem with those answers being given to the jury. I didn't and I didn't --

THE COURT: Do you want to give them when they come in and sit down? Do you want to give them the answers now, or do you want to just wait until closing argument and give them the answer. Because they're no rule about when they have to get the answer.

MR. ARABIA: The only thing I would point out is Mr. Martinez referred to no or didn't notice. Actually, those are different things, so I would want to have a look at the transcript. Because if he said no, that's fine.

MR. MARTINEZ: We can wait.

MR. VITTO: It can wait. Let's find out the answer.

THE COURT: Sure. As I mentioned, you could actually say it in closing arguments. You could say the answer was no. And you could say he doesn't know. And what I usually instruct the jury is go by your memory of what he says and so forth.

MR. VITTO: So we'll see if we can find

that. It was during the examination -- cross-examination of Dwight.

THE COURT: No. It won't be hard to find.

Did Jamele go to bring the jury back?

MR. VITTO: They're waiting for me to state, "Bring them on it."

(The jurors are brought back into the courtroom.)

THE COURT: Thank you. Please be seated. We're back in the presence of our 15 jurors. We're back on the record.

We have our next witness on the witness stand; so we're going to ask him to raise his right hand and be sworn.

Whereupon,

DAVID BORUCHOWITZ,

called as a witness on behalf of the State, was sworn and testified as follows:

THE WITNESS: I do.

THE COURT: You can wear your mask if your nervous about Covid. If you're not nervous about it, you can remove it so the jury can see your face and hear your words. Thank you, sir.

THE WITNESS: Thank you, Judge.

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