S A N D E R S H A W K I N S, of 10 Clinton Street, Hartford, Connecticut, having been called as a witness, was duly sworn by the Assistant Clerk and testified as follows:

DIRECT EXAMINATION

By Mr. Narus:

Q Mr. Hawkins, can you tell us what your occupation is?

A Yes, I'm the Chief Toxicologist for the State of Connecticut, Health Services Department.

Q And for how long have you been employed in that capacity?

A I've been in that position for about two and a half years.

Q And previous to that, where were you employed?

A My employ before that was for the US Army. I served as a toxicologist for the Army for twenty-nine years. And my final assignments were consultant for toxicology for the Army Surgeon General and Chief of Toxicology at the Armed Forces Institute for Pathology.

Q And could you tell us what your educational background is? Perhaps your undergraduate studies first.

A Yes, I have a Bachelor's of Chemistry, Bachelor of Science in chemistry from South Carolina State College, Orangeburg, South Carolina. I have a Master's Degree in chemistry from St. Mary's University, San Antonio, Texas. And I have a Ph.D. in toxicology/pharmacology from the

University of Texas.

Q And in addition to those degrees, do you, from time to time, have continuing education and specialized education and training in the field?

A Yes, I belong to the Society of Forensic Toxicologists and on an annual basis we have meetings to discuss various advances in the field.

Q And do you subscribe to publications with regard to your work?

A Yes, I do have publications in the field of toxicology.

Q And is your entire work devoted to that field or do you have other duties?

A Here in my employ by the State of Connecticut, my full occupation is as a toxicologist.

Q And have you ever testified as an expert before?

A Yes, I have.

Q And do you have any idea as to approximately how many times?

A Oh, I'd say roughly about fifty times.

Q And the nature of those cases?

A Both rape, drugs, and/or driving while under the influence.

MR. NARUS: Your Honor, I'd like to offer Dr. Hawkins as an expert, please.

THE COURT: Any objection in the field of toxicology?

MR. COSGROVE: Perhaps the doctor could define the field of toxicology. That would help.

THE COURT: Would you define your field?

THE WITNESS: Toxicology is the study of toxic effects of various compounds or things on the body. Usually, in my employ for the State of Connecticut, we do analysis on evidence that's brought to the laboratory by state and local police departments. These pieces of evidence may be anything, clothing, rape kits, blood specimend, urine specimens, and we analyze those specimens that are brought to us for whatever purposes the state and local police request of the laboratory; primarily for the analysis for drugs of abuse as well as blood specimens for blood types or determining whether or not there's seminal fluid present in clothing, or whether or not the person has a very high alcohol content in his blood or urine, in the cases of DWI's, those sort of things.

MR. COSGROVE: I'm satisfied.

By Mr. Narus: (Continues)

Q Now, Dr. Hawkins, did you have an occasion to examine the evidence that has been submitted in this -- related to this case or the victim, by the name of Linda?

MR. COSGROVE: Well, excuse me, we haven't established what the evidence is here.

Q Have you brought your records with you today, Dr. Hawkins?

A Yes, I have.

Q I show you an item which is marked, if I may, state's exhibit B for identification; ask you if you recognize that article of clothing.

A This is an item that was brought to the laboratory. When a piece of clothing is brought to the laboratory for analysis, the laboratory normally puts a tag on it with that particular case number that we assign to that particular item, and this is the number one item in that particular case of 9445.

Q And there are some numbers preceding that as well, 88?

A Eighty-eight is the designation of the year that we receive the item; the C refers to a criminal case; and the last four digits is a sequential number that we assign to that particular item when it arrives in the laboratory.

Q And is this, in fact, an item that you have analyzed or your office has analyzed in pursuant to the investigation of this case about a victim by the name of Linda?

A Yes.

Q And I'd also like to show you a second item. And, again, there is a tag on there. But I'd ask you to look at this and see if you can identify this particular item as well.

A Yes, this would be item two in the same case.

Q And do you recognize those two pieces of material?

A Yes.

Q And are these, in fact, the articles of clothing which you did, in fact, examine or your toxicology lab examined?

A Yes, that's true. We did examine those in our laboratory.

Q In addition, did you have an occasion to receive at your toxicology lab a saliva sample of Linda as well?

A Yes, that's true.

Q And do your records indicate whether that was drawn there?

A The sample on the saliva specimen?

Q Correct. I'd refer you to 88-T3494.

A Yes, we received that in the laboratory on the 5th of October, 1988, yes.

Q And that sample would have been drawn at the lab?

A Yes.

Q In addition, did you also have an opportunity to receive a sampling of blood, I believe in a vial, from the victim in this case, Linda?

A Yes.

Q And, I'm referencing 88-T3124, can you indicate where that blood was drawn?

A It was drawn in the laboratory.

Q And that's at the toxicology lab.

A Right.

Q And did you have an opportunity as well to receive a sample of Mr. Tillman, James Tillman, the defendant's blood for analysis? And I reference 88-T3458.

A Yes, we did.

Q And that was received at your laboratory?

A That's correct, it was received by Jane Quadrare*

Q And, in addition, there was also some saliva specimens which were received at your laboratory, those saliva samples being those of the defendant, James Tillman?

A That's correct.

Q And those were received at your laboratory?

A That's correct.

Q And did you also have an occasion to receive some materials from an individual known as Dennis? And I am referencing, I believe, 88-3916. I believe some samplings of blood --

A Yes, our laboratory number was 2331, that's correct.

Q And that evidence was received right at -- was drawn right at the laboratory?

A That's correct.

Q And in 88-C9445, which you've examined also, two articles of clothing, would your records indicate that that was received, in fact, as well by your office?

A Yes, they were.

Q And is there an indication as to who that --

* spelled phonetically

those materials were received from?

A They were received from an R. Nichols.

Q And the date that that was received?

A 8-22-88.

Q And does your record indicate who received that in your office?

A Yes, a person by the name of Janette Clausnycki*.

Q And do you, in fact -- you do, in fact, recognize these items as the items that you did perform that analysis on.

A Yes.

MR. COSGROVE: No objection.

THE COURT: May be marked as a full exhibit, state's exhibit A and state's exhibit B.

Q Now, Dr. Hawkins, we might start at the beginning in -- what I reference 88-C9445. Can you tell us what examination was conducted on those articles of clothing?

A Yes, we examined the articles for both seminal stains as well as bloodstains. For the seminal stains, we analyzed the specimen first with an ultraviolet light. Commonly you would probably call it a black light that the kids use for rock music. Under the black light or ultraviolet light, the body fluids that would be on a piece of clothing would flouresce or shine under that light. And that's the first test that we do. And if it turns out to be positive, then we assume that there's some body fluid present on the articles and therefore we do the second

* spelled phonetically

test which is a chemical test for acid phosphatase. And acid phosphatase is an enzyme that's found in the body, but the kind of acid phosphatase that we specifically test for is that acid phosphatase that is specifically found in seminal fluid. We get a positive test on that, which in this case we did, then we further examine the piece of clothing in what we call an enzyme immunoassay, which is a colorimetric procedure. When I say colorimetric, I just mean that it changes colors during the examination due to the chemical reactions that take place. And in this particular case, both the pantyhose as well as the dress proved to have seminal fluids present.

Q Would you be able to indicate to us where those stains, in fact, were located?

A On the pantyhose, it was located both in the crotch area and on the left leg of the pantyhose. In the crotch area here, where you see that there's material that's been cut away, that's the part of the crotch area that we tested. And on the lower-left leg, that's circled with a red wax crayon, and that's the area where we tested for the seminal fluid on the leg, which came out to be positive for acid phosphatase or seminal fluid.

Q And that would be on the lower leg of the pantyhose.

A That's correct.

Q Now, with regard to the dress, I might ask you to look at that and see if you can tell where, in fact, that stain was located.

A The hair(sic) on the lower edge of the inside of the dress. As you see, it's outlined by a red crayon marking. That's where we tested, the lower edge of the dress. And also here, where that hole is, and it's marked with the red crayon again, that's the area that we tested on the inside of the dress for seminal fluid.

Q That's on the inside of this dress, both of these.

A That's correct.

Q Now, you indicated they both tested positive. Did you also check -- did you also check those for bloodstains?

A Yes, we did.

Q And did you find any bloodstains on those items?

A On the pantyhose we did not find any bloodstains. But on the dress, right here in the front portion, where you see the holes are cut and marked -- outline with the -- I'm sorry, I keep tapping your microphone --

Q What if I hold this --

A The area that's marked with the red crayon is the area that we tested for blood. And we found that, in fact, there were bloodstains there, human bloodstains, of the type group A.

Q Type-A bloodstain on the front of the dress.

A That's correct.

Q And with regard to the seminal stains that were found on the pantyhose, were those able to be further typed or what further evaluation did you make on those stains?

A On the pantyhose, we found that the typing of the stain on the lower-left leg was absent of -- was missing A antigen, B antigen, and H antigen.

Q Okay, and that is in reference to 88-C9445, a supplemental report?

A That's correct.

Q And was that examination conducted with a different type of test than what you described earlier?

A Well --

Q Perhaps an absorption method, something of that --

A -- when we --

MR. COSGROVE: It's leading, Your Honor.

THE COURT: It does appear.

A What I discussed earlier was the types of analysis that we use to identify seminal stains. And in this particular case, we were trying to not only identify that a seminal stain was there, but what type of blood grouping the seminal stain was or the blood group of the individual that the stain was made by. In other words, who deposited the seminal fluid on the pantyhose. And in that particular case, we did use the absorption method of identification to identify the types of blood. And in that particular case, we found that there were no antigens present. To give you a little background, in order to identify blood groups, we have what is known as antigens and antibodies and it's through the detection of those antigens and antibodies that we determine the blood group of an individual. For instance,

if you have group A blood, then you would be forming agglutination with what we call a group A antisera, which would have the antibodies against group A, which would cause the red blood cells in a person from group A type blood to agglutinate. Unfortunately, when you have cells, you can -- I mean, fortunately, when you have cells, you can do it that way. But when you have a stain, usually the cells are no longer in any condition whereby you can use that kind of method. So that's why we have to use a different kind of method when we deal with stains. And it's a known scientific fact that not only the blood has these antigens, but also other body fluids such as seminal stains, vaginal fluid, tears, sweat, urine. You can type the kind of blood grouping that's present by using this method. And in this particular case, when you find no H antigen, what that essentially means is that a person belongs to that group of the population that does not secrete those kinds of antigens in their body fluids. So we have two groups of people, one that we call secretors and one that we call nonsecretors. The people who don't secrete the H antigen are called nonsecretors and those people who do secrete the H antigen are called secretors. The majority of people, eighty percent of the people in fact are secretors. Twenty percent of the population are nonsecretors. So in this particular case, when you don't find an H antigen present, you have to assume or conclude that the person who deposited that seminal fluid was a nonsecretor; and therefore, we

can't really type the kind of blood group that that person has because the antigens are not there in the stain.

Q Now, with regard to that pair of black pantyhose, your finding was -- again, that seminal stains were found and were those able to be typed? I believe you've indicated it was A, B, and H antigens were not found --

A That's correct.

Q -- and that was in the location of the lower-left leg of the pantyhose.

A That's correct.

Q And with regard to the dress, the black dress, there are two areas and you indicated seminal stains were found. And does your report indicate what was the typing of those?

A In that particular case, we were able to find H antigens, which meant that the person who deposited those stains on the dress was a secretor and the blood group of that person was of the B blood group.

Q So one is a secretor and one was a nonsecretor.

A That's correct.

Q And the nonsecretor was the pantyhose, I believe you've indicated?

A That's correct.

Q And the secretor was on the dress.

A That's correct.

Q Those would have to be two different individuals?

A Yes.

Q And you had an opportunity, you indicated, with regard to the victim, Linda, in this case, and you took -- there was a saliva sample and a blood sample drawn; and was there a typing done and could you tell us what examination was done with regard to her body fluids?

A Yes.

Q I'm looking at 3494 and 3124.

A On the blood we typed her as a group A individual, doing the agglutination test that I mentioned before. And on the saliva sample, we found that there was A and H antigens present, which is -- which supports that she is a group A individual and a secretor. Both her blood was A and her saliva was A and there were H antigens present.

Q In addition, you were able to evaluate or analyze saliva sample and blood sample of the defendant, James Tillman; and could you indicate to us what the results of that were and were those done by similar test as the victim? I'm looking at 3458 and 3473.

A On the blood of James Tillman, we found that he was a group A type blood specimen. And on the saliva, we found that no A, B, or H antigens were found, which would indicate that Mr. Tillman is a blood group A, nonsecretor, or no H antigens were found.

Q Now, if I might finally refer you to one more and that is -- I'm not sure exactly of the lab number. It looks like 2331, perhaps. An individual named Dennis. And there were samples of blood and saliva as well analyzed

there. And could you indicate to us, again, which tests were performed and what were the findings?

A We examined both blood and saliva on Dennis and his blood group is B; the A antigen was not found; and when we did his saliva sample, we found out that his blood group was confirmed as being B, with H antigens present, which would indicate that he is a group B individual, secretor.

Q He different from the defendant then.

A Correct.

Q Now, you've indicated to us that on the dress and on the pantyhose there are different types of stains. I believe you indicated the pantyhose was a -- if I might find that again -- that on the leg of the pantyhose, you were looking for an individual -- I shouldn't say looking for -- the evaluation was that on the leg of the pantyhose, that that stain would be consistent with an individual who is a nonsecretor of A type blood.

A It would be considered consistent with an individual who is a nonsecretor.

Q Of a nonsecretor.

A Correct.

Q And the defendant is, in fact, a nonsecretor, by your examination?

A That's correct.

Q And with regard to the seminal stains that are on the black dress, those seminal stains were found to be by a secretor?

A That's correct.

Q So those stains could not have been made by the defendant.

A That's correct.

Q Would those stains -- would it be consistent that those stains could have been made by the individual known as Dennis, who you examined?

A They are consistent with an individual who would be of blood group B and a secretor, which would be consistent with Dennis's blood group, that's correct.

Q Now, you talked about percentages in the population and such, and I believe you indicated that eighty percent of the population are secretors and twenty percent of the population are nonsecretors. Are there also statistical analysis done as to the blood typings of individuals and what percentages of the population are certain blood typings? For example, what percent are A and what percent are B?

A The US population statistics show that group is forty-one percent of the population; group B is about ten percent of the population; and group O is forty percent of the population; and group A/B is four percent of the population. In this particular case, you have A and B type individuals represented. So the population there would be A forty-one percent and B ten percent.

Q And you also indicated secretors and nonsecretors; does that factor into an individual in determining the

numbers that could be A-secretor types and A-nonsecretor types?

A Yes, it does. For instance, if there's -- the B group, which is ten percent of the population, eighty percent of those ten percent would be secretors, such as in this case, which would represent approximately eight percent of the population.

Q So eight percent of the population would be type B blood and be a secretor.

A That is correct.

Q And I believe you indicated that Dennis is B type and a secretor.

A That's correct.

Q So there would be an eight percent individual similar to him.

A That's correct.

Q And the defendant you indicated is a type A, I believe.

A That's correct. Which would be forty-one percent.

Q Forty-one percent of the population for type A blood. And the percent of the population that are non-secretors?

A That's twenty percent.

Q So that would mean that what percentage of the population are A type and nonsecretors?

A Eight percent.

Q Roughly eight percent of the people.

A Correct.

Q Therefore, would it be consistent with your testimony today that the dress would have been caused by an individual who is a secretor, perhaps a B type, and that there would be eight percent of the population that could have caused that stain?

A That's correct.

Q And with regard to the seminal stain that was on the leg of the pantyhose, would it be your testimony that there's roughly eight percent of the population that could potentially have put that there?

A That's correct.

Q And the defendant could have put that there.

A That's correct.

MR. NARUS: I have no further questions at this time, Your Honor.

THE COURT: Mr. Cosgrove.

MR. COSGROVE: Your Honor, I have many questions but we've all just heard some very technical testimony; I'd like to be able to review the lab reports that I have been given and the testimony that I just heard and I'm going to suggest and ask that I might begin my questions in the morning, given the hour now.

THE COURT: You're available tomorrow morning?

THE WITNESS: Yes, I would be.

THE COURT: Any objection?

MR. NARUS: No, Your Honor.

THE COURT: The court will recess your hearing on the evidence in this case until tomorrow at ten, with the same caution and orders I've given you. Have a good evening and we'll see you tomorrow morning. Court will adjourn until ten o'clock tomorrow morning.

(Court Adjourns)

(Trial continues September 13, 1989)

(September 13, 1989)

THE COURT: Good morning. Counsel ready to proceed?

MR. NARUS: Yes, Your Honor.

THE COURT: Mr. Sheriff.

(Whereupon the jury enters the courtroom)

THE COURT: You may be seated. Counsel stipulate to the presence of the entire jury panel and two alternates?

MR. NARUS: Yes, Your Honor.

MR. COSGROVE: Yes, Your Honor.

S A N D E R S H A W K I N S, having been previously sworn, resumes the witness stand and testifies as follows:

CROSS EXAMINATION

By Mr. Cosgrove:

Q Good morning, Doctor.

A Good morning.

Q You testified yesterday that the items in question here were brought to your office, to the state lab, I believe in August of '88, is that correct?

A That's correct.

Q And how were they packaged?

A If I recall, they were in a plastic bag.

Q Now, did you actually receive them?

A No, I did not.

Q Do you know who did?

A Yes, a person by the name of Janette Clausnycki received them in the laboratory.

Q And who actually performed the tests on them, the analyses?

A The person that actually performed the test in this case is a person by the name of Jane Quadraro.

Q But you are the head of the laboratory, is that right?

A That's correct.

Q When you were describing your profession, Doctor, in describing your experience in these matters and in the

handling of evidence in sexual assault cases, you mentioned a rape kit, didn't you?

A That's correct.

Q Could you explain what a rape kit is?

A Yes, it's a -- I think it's commonly referred to now as a sexual assault kit, since it's used for more than just rape between a male and a female. A rape kit is a box that contains slides, swabs, other materials, envelopes, that evidence is normally put into. This evidence is usually collected at a hospital by a physician and then is brought to the laboratory by one of the policeman or sent to the -- my laboratory by the hospital in question.

Q What types of evidence does a rape kit contain, in your experience, Doctor?

A Well, they would usually have blood specimens; they would usually have slides that are made by the physician, that are taken from various parts of the body; they might contain hair specimens from the victim that are used as standard hair specimens or they may be combed hair specimens that might have been contributed by the assailant; they might have swabs that contain specimens that are taken from various parts of the body, as the physician deems necessary.

Q To your knowledge, sir, did your office receive a rape kit or a sexual assault kit in this case?

MR. NARUS: Your Honor, I'm going to object. I don't know if counsel is going to be able to

somehow make this relevant, but I don't think that's relevant right now. The Doctor is simply making --

THE COURT: He hasn't been offered for that. You can call him as your own witness.

MR. COSGROVE: Well, Your Honor, he has testified as to his experience and as to his procedures --

THE COURT: But he was only offered for the purpose of examination of the items that have been placed in evidence.

MR. COSGROVE: All right.

THE COURT: So it goes beyond the scope of the direct examination. And the jury is to disregard it. Mr. Cosgrove can call the Doctor as his own witness, if he wishes to, and inquire as to further examination.

Q Doctor, were the items of evidence that we saw yesterday, namely a dress and a pair of pantyhose, are they the only items that your lab received in this case?

A No.

Q What other items did you receive?

A We received blood specimens, as I testified to yesterday; we received saliva specimens on a number of different people; we received a jacket; and a pair of boots; and some sheets.

Q Were the jacket, the boots, and the sheets packaged

with the clothing items that we saw yesterday?

A Yes, they were all in the same plastic bag.

Q All right. A sealed plastic bag?

A Yes.

Q Is there a protocol or a schedule of -- that is followed by your lab, or any lab, if you know, in the analysis of evidence in a sexual assault case?

MR. NARUS: Again, I'll --

A I don't --

MR. NARUS: -- I'm going to object again, Your Honor. I'm not sure --

THE COURT: It does go beyond the scope.

Q Was a particular protocol followed in this case, Doctor, when you received -- when your lab received this evidence?

A As I explained yesterday, there are certain procedures that we follow. But as far as the testing is concerned, we normally test the items for those things that are requested by whoever the submitting agency is. In other words, we don't necessarily test the evidence for everything that we possibly could, because in a large majority of the cases it wouldn't be pertinent. So we test it for whatever they ask us to do.

Q All right. So, in this case, the agency would be the Hartford Police Department?

A That's correct.

Q And what did they ask you to test for, Doctor?

A We were required or requested to look at these items for bloodstains, seminal stains, and blood types.

Q All right, now, do you know from whom Miss Janette Clausnycki received the items?

A The person's name that's on the form as delivering it to the laboratory is one R. Nichols.

Q All right. Do you happen to know where R. Nichols got the items?

A No.

Q Would it make a difference in your analysis, in this case, as to where he got them or how he received those items?

A No.

Q It wouldn't.

A No.

Q You testified that you took a sample, I believe, from the lower-left leg of the pantyhose. Well, strike that. You found what you identified through various tests as seminal stains on both of the items, is that right?

A Correct.

Q I'm talking about these items that we have before us, the dress and the pantyhose.

A Correct.

Q You mentioned semen stains on the front and the lower-back portion of the dress, is that right?

A That's correct.

Q And you mentioned semen stains on the crotch

and the lower-left leg of the pantyhose that we saw, is that right?

A That's correct.

Q You've only reported on the semen stains on the lower-left leg of the pantyhose, is that right?

A As far as typing is concerned, yes.

Q How about in the crotch area, did you test that?

A We don't normally test the crotch area for blood typing or blood grouping if, in fact, we have other stains present, because when you have a stain in the crotch area there is always the possibility that the stain is contaminated with the vaginal fluids of the victim. So we choose the best specimen in order to do the blood grouping. And it's more likely that if seminal stains are on the leg portion of the garment, that we would not find a stain that's contaminated with vaginal fluid on that portion of the garment. So that's the stain that we selected to test. We could possibly have tested the crotch area. But, like I said, that information could possibly be confounded because of the fact that you have vaginal fluid from the victim there as well.

Q Could possibly be contamined.

A That's correct.

Q You could have tested it, but you didn't.

A That's correct.

Q So you're saying that someone who has been vaginally raped, sexually assaulted, and after that wore pantyhose,

if stains were found on the crotch and on the leg, that it would be better procedure to test the leg stains than the crotch stains.

A That's correct.

Q All right. How large a patch, if I might use that term, of the leg stain did you test?

A Well, I don't know if you saw it yesterday --

Q Would it help if you had the pantyhose?

A -- there was an area about that large that we cut out of the leg and we tested a very small part of that. We test, usually, two or three different areas of that particular stain.

Q So that was about a two square inch section, would that be accurate?

A It would probably -- the actual piece that we tested would probably be even smaller than that, about a quarter of an inch.

Q About a quarter of an inch.

A Correct.

Q Okay. Doctor, did you test a control sample as well?

A Yes.

Q And where was that taken?

A Usually we will try to find a piece of the material that is not stained and we'll take a portion of that and test it as well. And if you notice on the panty --

Q Well, that's all right, Doctor. Hang on just

a second. Could you show us, from this item, again, where the sample that you tested was taken from and where the control sample was taken from?

A If you'll notice, there is an area here that's marked with a red crayon, those are the portions that we took for the sample. And the -- over here, on the other side, is the areas that we would take for the controls. You'll notice that there's an area cut out alongside of the other pieces and we used those areas to get a control specimen of the garment.

Q And there was no blood on the pantyhose, that you could determine, is that right?

A That's correct.

Q Now, you gave some statistics yesterday, Doctor, about the makeup of different -- or the percentages of different blood types among the US population, among the population at large, is that right?

A That's correct.

Q And I think you said forty-one percent type A, ten percent type B, forty percent type O, and four percent type A/B, is that right?

A It should be forty-one, forty-five for type O, and type B would be about ten percent, and type A/B would be four percent.

Q I was wondering where that other five percent went. Thank you. Forty-five percent for type O.

A Um-hum.

Q Now, you testified that the stains that you -- the semen stain that you found on the leg of the pantyhose, you could not detect any antigens in it.

A That's correct.

Q And your conclusion, and your testimony yesterday was that that had to come from a nonsecretor, is that right?

A That's correct.

Q Now, you also -- Mr. Narus, when he was questioning you yesterday, asked about some percentages of occurrence in the population, if I can use that term. And I think you said that the semen stain that you were able to type on the dress could have come from eight percent of the population, is that right? Or could only have come from eight percent of the population.

A That's correct.

Q Isn't it true, Doctor, that given the blood type on there, that there is a racial difference in the composition?

A B type blood is more -- is found more often in Blacks than in Caucasian, that's correct.

Q And isn't it true that it's perhaps found twice as much and it would be closer to fifteen percent of the black population that could have left that particular stain.

A That's correct.

Q All right. Now, you also testified that -- I believe the mathematics that you and Mr. Narus used yesterday was that the stain on the pantyhose that you did test,

by the leg, could also only have come from eight percent of the population.

A The stain on the pantyhose could have come from eight percent of the population with blood group A.

Q However, you also testified that you couldn't determine the blood type of that, isn't that right?

A That's correct.

Q So, in fact, if we're using this figure of twenty percent of the population in general being nonsecretors, that stain could have come from twenty percent of the population and not eight percent.

A That's correct.

Q Okay. Now, you testified that you have to assume, I believe those were your words, you have to assume that this stain came from a nonsecretor. Again, I'm talking about the stain on the leg of the pantyhose. Now, isn't it true, Doctor, that that stain, if you didn't have a large enough sample, that the sample that you tested was not large enough, that stain could actually have been made by the same person who made the stains on the dress, if that stain that you tested was not large enough or did not include -- that particular stain did not include antigens in it?

A That's a possibility. However, we should not really get concerned about the size of the piece of material that we use to do the testing, in that this is the normal procedure. And even though I'm talking about a quarter

of an inch piece of material, that's a relatively large sample. And I'm not saying that that was the total stain that we used. That was a portion of the total stain. And we tested not only the stained area once, but we tested it more than once, with a quarter of an inch of material each time. So it's like taking the total stain and then taking pieces from various parts of that stained material to come up with an answer.

Q How many times did you do this testing?

A We tested two areas of the stained area twice, so a total of four times, plus the controlled.

Q Each time a quarter of an inch, approximately?

A Correct.

Q So about an inch, square inch. Would that be -- that would be your total sample?

A Total, right.

Q And you're saying that the size really doesn't make any difference because in your standard procedure any size would be adequate.

A Most -- some procedures only call for one strand of a thread in order to do the testing.

Q Okay. But, in general, any size is adequate, is that what you're saying?

A That's correct.

Q All right. Does it matter, Doctor, to a toxicologist testing samples of this nature, evidence of this nature, does it matter what the time span is between the time the

evidence is generated or deposited and the time you test it?

A Not really.

Q It doesn't matter.

A Bloodstains and seminal stains have been tested years after the initial act and still get credible results.

Q Does it matter how clothing that contains evidence is packaged and preserved between the time of the incident and the time of the testing?

A Yes, it does and, yes, it doesn't. And the reason why I'm ambivalent is because we test a control sample along with the test. So in that regard, it doesn't really matter because if our controls come out the way they're supposed to then that would certainly affirm that we're doing the test in the proper fashion and that there's nothing on the material or the material hasn't been treated in some way that would interfere with the testing procedure. Obviously, it's always better to test a sample that is freshest or a shorter period of time after the evidence has been collected. But, in forensic science, that's rarely the case, that we are able to get a brand new specimen in order to test them.

Q You're able to get it how soon, normally, in modern science?

A It all depends. In our situation here, in Connecticut, usually the specimens are not sent to the laboratory unless there is some indication that that is going to go forward

into a trial, specifically with the Hartford PD.

Q All right. Now, isn't it a fact, Doctor, that a normal procedure would be to keep items of clothing separate, if they were taken as evidence in a case such as this?

A Yes, that's correct.

Q In this case that wasn't done, was it?

A Not according to the record.

Q You had a bag with dress, pantyhose, boots, jacket, sheets, maybe some other -- I don't know any other items, wrapped up in a sealed bag, is that right?

A That's correct.

Q Isn't it a fact, Doctor, that normally, or the preferred procedure in evaluating, or preserving rather, sexual assault evidence for body fluids is to not seal them in an airtight bag?

A No, I can't really say that that's so, when you say airtight, because I don't see what difference that would make in the final analysis. If the clothing were wet, obviously it would be better to have the clothing not sealed in an airtight container because then the possibility of mold and fungus or other things that could possibly interfere with the testing procedures is possible.

Q How about if the clothing were wet from the blood or semen or whatever?

A Well, if they were wet from the thing that you're looking for, in the process it would just air dry or would just dry out.

Q How would it dry, if it was sealed in a plastic bag?

A Well, when we say sealed in a plastic bag, I doubt seriously if you would ever find a plastic bag that is completely airtight.

Q Wouldn't a paper bag be a better procedure?

A Possibly.

Q Possibly?

A Um-hum.

Q Did you again physically see this bag come into the lab?

A No.

Q You said you did different tests on these items, or specifically on quarter inches of the pantyhose, is that right?

A That's correct.

Q Have you ever gotten inconsistent readings in the past, on different tests of items?

A Sure.

Q You have. What contributes to inconsistent readings, if you can tell us?

A Well --

MR. NARUS: Your Honor, I'm going to object to this. Unless there's some reason to believe that that's the case here, we're talking about this case and the analysis of this evidence --

MR. COSGROVE: I think this goes to his

standing as an expert, Your Honor, if he --

THE COURT: Pardon?

MR. COSGROVE: I think this goes to his qualification as an expert in this field. I think he's --

MR. NARUS: Well, we've already qualified him as an expert.

THE COURT: The only relevance here, however, is to this matter and not to others. If you want to ask him whether these results could be regarded as inconsistent, you may.

Q Were these results, in fact, inconsistent?

A The results from the analysis that we did here on these pieces of evidence?

Q Yes.

A No.

Q But it is possible to get inconsistent results.

MR. NARUS: Objection. Anything is possible and --

THE COURT: Sustained.

Q Were you ever asked to do more sophisticated tests than you did do, Doctor?

MR. NARUS: Objection. He's already testified, by counsel, as to what tests were requested to be performed on this, so I don't --

MR. COSGROVE: I didn't ask that.

MR. NARUS: Sure you did. You asked him

what questions he was asked to be performed or by the submitting agency.

THE COURT: Counsel, you address the court, not counsel.

MR. NARUS: Sorry, Your Honor.

THE COURT: Do you have any objection? You state the grounds of your objection.

MR. NARUS: Yes, the objection is -- the question has already been asked. He's asking whether additional tests were performed and he already indicated what were performed and what was requested to be performed and now he's asking as to other tests that could have been performed or may have been performed.

THE COURT: If you qualify your question -- it did appear to the court that you asked what was requested and he did answer. If you wish to qualify it to whether or not anyone else asked for any additional --

MR. COSGROVE: I believe what I asked just now, Your Honor, was if he was asked to do any more sophisticated test than these that he did do.

THE COURT: Well, he's already asked -- he was already asked what the Hartford Police Department had requested and he gave an answer.

MR. COSGROVE: I'm not sure that I asked

that, but all right.

Q Could you tell us what the Hartford Police asked for in this case?

A Yes. The Hartford Police asked me to do -- to analyze the evidence for bloodstains, for seminal stains, and blood groups.

Q All right, thank you. Now, the dress, did you ever test for the presence of sperm?

A No. It would be impossible to determine whether on not sperm is present on a piece of material of this sort.

Q Wouldn't it be impossible, in large part, because of the length of time between the incident and when you finally saw these materials?

A No, the problem with trying to detect sperm on a piece of material of this type is how do you get it off of the material onto a slide to look at it under a microscope? And in that process, you would more than likely destroy the sperm cell.

Q You couldn't look at a -- say a cutting of the pantyhose under a microscope?

A No, sir.

Q What effect, in your opinion, would it have to combine all of these clothing items together in one bag and store them for a period of seven months before submitting them to the laboratory?

A To my way of thinking, there's really no effect.

Q No effect. Wouldn't refrigeration of these items be the preferred way of preserving them until analysis in the laboratory?

A No, not necessarily. As you pointed out before, if you were to refrigerate the materials, this would tend to cause condensation and other sorts of fungal growths or mold growth and that sort of thing.

Q How about frost-free refrigeration?

A Frost-free refrigeration?

Q Yes, frost-free refrigerator.

A I'm not sure that that's possible, because you still would have condensation when you take a warm object and put it into a colder surrounding. So you're not really talking about frost as most people would think about a refigerator that's frost free that they use in their kitchen.

Q All right. If I can turn your attention to the dress for a moment, Doctor; you analyzed two samples from that, did you?

A We analyzed samples from two different locations on the dress.

Q And, again, excuse me, I'm talking about semen stains and not bloodstains.

A Pardon?

Q Excuse me, I'm talking about semen stains and not bloodstains.

A I am too. We analyzed portions of the front and the back-lower edge and we took multiple samples from

each one of those areas.

Q All right, and your testing on that revealed a type B secretor, is that right?

A That's correct.

Q The blood would have been from a type B secretor. Now, isn't it possible, Doctor, that the stain on the pantyhose, the semen stain on the pantyhose could have come from the same person as the stain on the dress -- stains on the dress?

A No.

Q It is not possible?

A I guess if you want to say that anything is possible --

MR. NARUS: Yes, again -- I'm going to -- yes, anything is possible and I think that's a sufficient answer. If we're going to start getting into conjecture and hypotheticals and such, we can be here all day.

THE COURT: For the jury's information, when an expert is testifying, he can only testify as to reasonable probability and not to possibilities, so the objection runs to the question being asked of possibilities.

Q So it is possible, right, Doctor?

MR. NARUS: Objection.

THE COURT: Sustained.

MR. COSGROVE: Well, exception, Your Honor.

THE COURT: Exception may be noted.

Q Now, you did say that, in regards to the stain on the leg of the pantyhose that you analyzed, Doctor, that it is possible that that was not from a nonsecretor, is that right?

MR. NARUS: Again, we're getting into the same thing.

MR. COSGROVE: No, we're not. He's testified to this.

A Our results show that the stain on the leg came from a nonsecretor.

Q And that was due to the absence of antigens, is that right?

A That's correct.

Q But didn't you say that it is possible that a stain or a portion of a stain might be from a secretor but might be a portion of the stain that did not include the antigens?

A No, that's not what I said.

Q So is that not possible?

A No, that's not possible.

Q All right. It's impossible.

A Right.

Q So that stain, in your opinion, again, the leg on the pantyhose, could not have produced a false negative reading for antigens.

A No, sir.

MR. COSGROVE: Excuse me just a minute,

Your Honor.

(Pause)

Q Doctor, you testified that you have various degrees in chemistry and that you are, in fact, the chief toxicologist for the State of Connecticut, is that right?

A That's correct.

Q Have you published in this field, Doctor?

A Yes.

Q How recently? And on body fluids specifically?

A Most of my work, as far as my research has been concerned, has been done with drug metabolism.

Q Drug metabolism.

A Correct.

Q How about in the area of bodily fluids such as semen and blood?

A As far as serological testing is concerned, no, I have not published in that area.

Q All right. Are you familiar with literature in the area, Doctor?

A Yes.

Q Are you familiar with the work of Dr. Henry Lee, the Chief of the State Police Crime Laboratory?

A I have -- we have discussed these things, yes.

Q And is Dr. Lee, in your opinion, an expert in this field?

A Yes.

Q All right. Are you familiar with Dr. Lee's book,

along with Drs. DeForest* and Genslung*?

A I have not read the book, no.

Q You have not read the book. All right. Are you familiar with the book?

A Yes.

Q All right. Is this a recognized text in this field?

A Yes.

Q And Dr. Lee, in fact, is a -- in addition to being the head of the State Police Crime Laboratory, is a professor of forensic science at the University of New Haven, is he not?

A Yes.

Q And Dr. Genslung is the director of that program at the University of New Haven, is he not?

A That's correct.

Q Now, are you familiar with their, again, in this book, but through your own experience with them, are you familiar with their publications in this area, publications in the area of collection, packaging and preservation of evidence in sexual assault cases?

A Dr. Lee and I served on a commission for the legislature just this past year to come up with a protocol and I was the chairman of that commission for the collection of specimens for sexual assault cases. So, yes, I know of Dr. Lee's feelings on and position on how to collect samples, that's correct.

* spelled phonetically

Q Are you familiar with his position that any article having a suspected body fluid stain should be collected, dried completely, and placed in a paper container that is not airtight?

A That's correct.

Q And his conclusion that, given that, if that procedure is not followed, spurious reactions for A, B, and H, which are antigens, may all be seen separately or in any combination, as the result of bacteria in the stains.

A That's correct.

Q And are you familiar with this position that even fully dried stains suspected of containing semen should be handled with care and not crushed, wadded up, folded, and so on? Rough handling of the stain area causes more destruction of the sperm cells which the laboratory needs intact to make the identification of the stain.

A As I stated before, we don't try to recover spermatozoa from materials in our laboratory. And also, as I stated before, that if spurious results are going to be obtained, this would be found in the control specimens that we also run along with the suspected areas of the material. So, therefore, the procedures that we use in the laboratory that I direct would tell us or would indicate to us that those kinds of results are being obtained; and in those cases, when that happens, then we indicate on the results that the results are inconclusive.

Q All right, inconclusive. Are you aware of Dr.

Lee's position that the -- regarding the collection of evidence in sexual assault cases, the best procedure is to store evidence in a refrigerator, if possible? The environment in a frost-free type refrigerator is usually very dry.

A Yes, I am.

Q All right. How about his position that the victim's clothing should collected in separate containers after all stains have dried and the containers should be labeled carefully?

A That's correct, that's his position. However, I think that if you --

Q Well, excuse me just a minute, Doctor.

A -- if you -- if you --

Q Excuse me just a minute, Doctor. How about investigators and scene personnel should never handle evidence bearing blood or body fluid stain evidence with their bare hands, they should wear disposable gloves or use clean tools? Even a minute and unseen amount of perspiration from someone's hands can deposit blood group substances onto the evidence and --

MR. NARUS: Your Honor, I'm going to object.

Q -- this will thoroughly complicate --

THE COURT: There's an objection, and it's sustained. Reading from a document not in evidence.

Q You served on a panel with Dr. Lee about body fluid evidence, sir?

A That's correct.

Q Do you dispute the conclusions you've just -- that you're familiar with, of his?

A I don't dispute them. However, I think they're -- some of the readings that you've just made are not taken in the right context. When Dr. Lee is talking about putting things in a frost-free refrigerator; I think by and large he's talking to the rape kit that we talked about earlier rather than clothing specimens that you are referring to here in this case.

Q Well, you agreed with his position about clothing just a moment ago, did you not?

A I agree that the best way to do it is to collect specimens in separate containers, that's correct, after they --

Q All right, how about clothing, boots, jackets, sheets, together in a bag, plastic bag, sealing it with tape, and putting it on a shelf in a police locker for seven months?

A That probably is not as good as collecting it in separate bags.

Q All right, thank you.

MR. COSGROVE: May I have just a minute, Your Honor?

Q A moment ago, Doctor, you mentioned that you wouldn't get spurious results because you test a control area as well. But isn't the definition of a control area

a clean area, so you wouldn't get -- you wouldn't have the material to be contaminated on that control area, would you?

A When we take a controlled area, as I said before, it's an area that is outside of the stained area. In other words, it's an area that has all of the characteristics of that garment, with the exception of the stain. So, therefore, if there's anything on that garment, other than the stain giving you spurious results, then that would be deemed as inconclusive results. If you get no spurious results on your control area, then the assumption is that the stain area that you tested, the stain is what's giving you the result and not the material itself or something else that may be on the material.

Q But the stain is only on the -- the stained area, it's not on the control area.

A That's correct.

Q So if the stain were to have been contaminated somewhere along the line, the control area wouldn't necessarily be contaminated. The stain area could still yield a spurious result, isn't that right? If it were to have become contaminated?

A When you say spurious result, what do you really mean?

Q A false result. A false reading, if you will.

A It's possible.

Q All right.

MR. COSGROVE: May I have just a second, Your Honor?

(Pause)

Q The methods you use to detect semen, Doctor, on items of clothing such as this, do you test a whole garment; for example, the dress?

A Initially we look at the whole garment under the black light that I referred to, or the ultraviolet light.

Q Ultraviolet light.

A And that usually locates an area that indicates that there's body fluid present, the part that fluoresces. After that point, we concentrate on that particular area and do the other testing on that area.

Q All right, you use further tests if the ultraviolet light indicates the presence of a bodily fluid.

A Right.

Q You isolated two spots on the dress; I believe lower front and lower back, is that correct?

A We've said front and lower back, right.

Q All right. Do you know where on the front?

A No, but that would be identified on the dress with the areas that are marked with the crayon.

Q Would you again show us where you took the samples from this dress?

A Sure. (Pause) This is one area here.

Q Is that the front of back? If you know.

A This is the lower edge, the back. And this is the other area here.

Q A square inch, would that be accurate?

A Yes.

Q Did you take the control sample from the dress?

A This is -- I'm sorry, as before, this is the area here that we took the stain from, this large area here. And this is another area here that we took the stain from.

Q So it doesn't appear that there was a control area?

A There is a -- we would take the control specimen from the area close to where the stain is, so we can get relatively the same kind of material in the same area of the garment. So the control specimens would have come from around those same areas too.

Q If you took them.

A Yes.

Q But it's not marked on there.

A Not as control. However, on my worksheets, it does show that we took control specimens.

Q Now, this dress, Doctor, as far as you know, was in the general package, along with the boots and jacket and pantyhose and sheets and whatever.

A Pardon me?

Q This dress was part of the package with everything else.

A Yes.

Q And was it -- it wasn't on a hanger or anything, was it, as far as you know?

A No.

Q All right. And just to get back to the pantyhose, you decided not to test the stain in the crotch area, even though you determined there was a semen stain there, is that right?

A We determined that there was a semen stain there, but we did not test that for the reasons that I gave before.

Q All right. Thank you. I have nothing further.

REDIRECT EXAMINATION

By Mr. Narus:

Q Dr. Jane Quadraro works for you?

A Correct.

Q She did this analysis?

A That's correct.

Q And what role do you play in evaluating her analysis? Could you tell us a little bit about that?

A Jane Quadraro works in the serology section of the laboratory and she performs the analysis. And after the analysis are completed, then I review her work and either individually or together we write the report.

Q And when you say you review her work, what are you reviewing for?

A Correctness, compliance with the procedures of the laboratory, and to interpret the results that we get

from the various tests.

Q Do you check for inconsistencies in the test results?

A That's correct.

Q Are there any inconsistencies in these results?

A No, sir.

Q If there were, you would have reported it as such?

A We would report the results as inconclusive.

Q Now, we also have in this case two types of seminal stains and I believe you've testified that one was from a secretor; I believe that was the one located on the dress.

A That's correct.

Q Or the ones located on the dress. And you have stains on the pantyhose which are by a nonsecretor, is that correct?

A That's correct.

Q Is it your testimony that those stains were from different individuals?

A Correct.

MR. COSGROVE: Well, Your Honor, that's a question of fact for the jury. He can't say that.

MR. NARUS: Well , that's what he did say.

THE COURT: I thought this was his expertise. Do you have an opinion as to the last question?

THE WITNESS: My opinion is that the two

stains came from two different individuals.

Q And the stain on the pantyhose could have come from the defendant.

A Yes.

Q Now, the fact that the -- in terms of the seminal stain on the crotch area, you indicated to Mr. Cosgrove that you don't -- you found seminal stains but you didn't test for them. Is there a reason for doing that, if one of the stains that you find in your analysis is by a secretor and one by a nonsecretor?

A Yes, because, as I indicated before, and has been pointed out before, that the nonsecretor has the absence of antigens and if you take the body fluid from a nonsecretor and mix it with a secretor, the only result that you would get would be that from a secretor, because there are no antigens present from the nonsecretor. So if you were to take or to do an analysis on the stains that had both fluids from a secretor and a nonsecretor, the results would be inconclusive because you couldn't demonstrate the absence of antigens when there are antigens from the secretor there.

Q So you need to test the other areas.

A Correct.

Q Mr. Cosgrove asked you a number of questions about the size of the test sample that you took, I believe on the pantyhose, and you were talking about a quarter inch; is that a sufficient sample to make your comparison with? Could you have made it a smaller piece? What would

be the normal accepted procedure?

A That would be a normal size.

Q And I think you indicated to him that you tested that a number of times and compared those results with a control sample also on the pantyhose?

A That's correct.

Q And did you find any inconsistent results in those tests?

A No.

Q Now, Mr. Cosgrove also indicated that -- I believe he started asking you some statistics about blood types and he talked about B types and said that B types -- or Blacks may be more -- there's a higher percentage of Blacks who are B types?

A That's correct.

Q But the defendant isn't a B type.

A No.

Q He's an A type.

A That's correct.

Q The stain on the dress was made by what type?

A A B type individual.

Q So that stain could not have been made by the defendant.

A No.

Q Now, Mr. Cosgrove asked you a number of questions as to the packaging and preserving of evidence. And I believe you indicated that you had test for the potential

contamination of these pieces of evidence that were submitted to you.

A Yes, we would do that by running the control specimens that I talked about.

Q So, in other words, you don't necessarily know how they've been handled or by whom, so you take that into account in your analysis.

A That's correct.

Q And I believe you indicated to him that there may be preferable ways of handling evidence, but in this case, you did not find, by your procedures, and the test with the control and the result -- and the actual stains, that there was, in fact, any effect as to your results.

A That's correct.

Q In other words, there was no contamination of those stains.

A Not that I could find.

Q And the fact that these pieces of evidence may have been commingled with other items delivered, I believe black and red jacket, some boots and some sheets, find any seminal stains on any of those or anything -- were there any contaminants on those articles that you found to have contaminated in some way the dress or the pantyhose?

A On the jacket, the boots, and the sheets, we didn't find any seminal stains.

Q There's no potential that it could have come from another source; they were on there when you got those.

A Well, if there were no stains on the sheets and the boots and the jacket, then it would be impossible for there to be any transfer of seminal stains from those items to the other items.

Q In other words, there was no contamination because they were mingled with other items of clothes.

A Not with the jacket and the boots and the sheets, no.

Q And, as far as you know, those were the items of clothes that they were packaged with.

A Correct.

Q And, again, there was no contamination, by your testing procedures on these items, the pantyhose and the dress, with regard to your results as far as the seminal stains and the typing of the seminal stain on both the dress and the pantyhose.

A That's correct.

Q And the blood typing of, of course, the seminal stain on the dress.

A That's correct.

Q Did you get any false negatives at all in your testing?

A No.

Q So your final result, as far as the typing of seminal stain, is that as far as the -- detecting the seminal stains, is that with respect to the pantyhose, that could have in fact been made by the defendant.

A That's correct.

Q And the stains on the dress could not have been made by the defendant.

A That's correct.

Q Could I ask you just another question? I know Mr. Cosgrove was talking about using the ultraviolet light to detect the stains. Are seminal stains on a pair of black pantyhose fairly easy to detect?

A If there's a large enough stain, yes.

Q What color would they have perhaps become, that stain, on a pair of black pantyhose?

A It would show up as a grayish-white stain.

Q Be detectable?

A Yes.

Q And as far as all your testing is concerned, testing for contaminations and with the control samples, you are in fact satisfied that there was no contamination and these results are -- you can be confident that these results are in fact accurate.

A That's correct.

Q I have no further questions.

THE COURT: Mr. Cosgrove.

MR. COSGROVE: Thank you, Your Honor.

RECROSS EXAMINATION

By Mr. Cosgrove:

Q You talked just a minute ago about the two different items of clothing here and the different semen stains found.

Could those two stains have come from the same person?

A No.

Q They could not.

A No.

Q All right. Couldn't the stains on the pantyhose, the stain that you tested on the pantyhose, have come from approximately twenty percent of the population?

A That's correct.

Q And the stains on the dress come from a B type secretor and that could have come from fifteen percent of the population, is that right? I'm sorry, of the Black population.

A That's right.

Q But it could not have come from James Tillman.

A That's correct.

Q Now, Mr. Narus started to ask you something about contaminants in this bag of clothing and boots and sheets and all that, and then switchen to semen. Now, can't there be other contaminants that would affect or could affect the reading, other than semen? We're talking about boots here, right? are used on the ground, outdoors?

A That's correct.

Q You're saying that nothing from that could contaminate any reading in this pile of clothing?

A I can't say that that's not possible.

Q All right. Now, sweat from the boots, perspiration --

A Well, you know, if you're planning on talking

about sweat from the boots, the logical place for the boots to have sweat is on the inside, not on the outside --

Q Right.

A -- and, therefore, it's unlikely that the inside of the boot would have rubbed against that particular portion of the dress to give me a false reading on the dress.

Q How about the color of the jacket, for example?

A (No response)

Q Or the sleeves of the jacket.

A I would imagine anything is possible.

Q Right. And isn't that why it's preferable to separate each item of clothing?

A That's correct.

Q All right. But that wasn't done here, was it?

A No.

Q And, again, Mr. Narus asked you something about as far as the crotch stain, the possibility of knowing that one stain is a secretor and one stain is a nonsecretor and so forth; but you never tested the crotch stain, you have no idea what it contains, isn't that right?

A I just -- the question that he asked me I answered as best I could as to the reasons why we don't do that. And the obvious reason is that there's contamination or the possibility of contamination between the victim and the assailant.

Q Is there a possibility of a correct reading?

MR. NARUS : Well, again, back into possibilities.

MR. COSGROVE: He's been testifying to possibilities.

THE COURT: He's already indicated he didn't test it because it wasn't one that could result in a reasonably probable result. And I don't know why you would then ask him whether it's possible to get a certain result when he's already indicated it isn't, and that's why he didn't test it. So the objection is sustained.

MR. COSGROVE: Exception, please.

THE COURT: Exception may be noted.

Q You're saying that it wasn't probable to get an accurate test result from the crotch stain?

A That's correct, because the results would be confounded by the secretions of the victim.

Q But wouldn't you have the victim available to you for any comparison purposes?

MR. NARUS: Objection. Again, wouldn't we have is -- the question is the evidence at --

THE COURT: It's argumentative.

MR. NARUS: -- hand and what are we going to do.

THE COURT: Objection sustained.

Q You did have a blood test and a saliva test from the victim in this case, isn't that right?

A That's correct.

Q And you, for whatever reasons, did not test the

semen stain in the crotch of these pantyhose.

A That's correct.

Q All right, thank you.

REDIRECT EXAMINATION

By Mr. Narus:

Q But you did, in fact, test to see whether there were contaminants on these stains and I think you indicated there weren't?

A We did control samples and the controls indicated that there was nothing spurious about the samples that we tested.

MR. NARUS: I have no further questions.

MR. COSGROVE: Nothing further.

THE COURT: Thank you.

MR. NARUS: If we might just have a brief recess, Your Honor?

THE COURT: You can have the midmorning, if you wish.

MR. NARUS: Sure.

THE COURT: Court will stand in midmorning recess.

(Whereupon the jury leaves the courtroom)

(Recess)

THE COURT: And, for the record, I understand Mr. Narus has produced the fingerprints taken from the exterior of the victim's car and has such for photographing and delivery to Frank

Delissa, the state fingerprint expert, and that the defense requests, through having called Frank Delissa, to have those compared with their own file of fingerprints to determine whether or not they can be identified. And that Mr. Delissa has indicated to the defense that if the request comes through the state's attorney's office, he would be more comfortable in doing it immediately. Is that a correct --

MR. NARUS: Yes, Your Honor. And I'm doing this as a favor to the court, under all the circumstances.

THE COURT: I understand you're going to have a Hartford police officer bring them over to Mr. --

MR. NARUS: I think Mr. Doucette will bring them over, because it was given into his custody. I think he would make arrangements for that.

THE COURT: Thank you.

MR. COSGROVE: Thank you, Your Honor.

MR. NARUS: If I might just have a moment.

(Pause)

THE COURT: Counsel ready to proceed?

MR. NARUS: Yes, Your Honor.

MR. COSGROVE: Yes, Your Honor.

THE COURT: Mr. Sheriff.

(Whereupon the jury enters the courtroom)