

1 Q [REDACTED] Commonwealth versus Angel D. Hernandez?

2 A. Yes.

3 Q And you are --

4 A. Officer James D. Pollard.

5 Q James D. Pollard. Would you please read on page 24, right
6 there?

7 MS. DILLON: To yourself, sir.

8 Q Yes, to yourself. (Pause)

9 A. Yes.

10 Q All right. Now, I ask you again, had Mrs. [REDACTED] seen
11 the gloves before she made the identification?

12 A. She may have, yes.

13 MS. SILVIA: No further questions.

14 MS. DILLON: I have no further questions.

15 May we approach the bench, Your Honor?

16 THE COURT: Yes.

17 (The following bench conference took place at this
18 point):

19 MS. DILLON: Your Honor, John Abbott is here from
20 Boston. I'd like to call him out of order, but it would
21 necessitate having him talk about evidence that hasn't
22 been admitted yet. Those things that I've marked for
23 identification, I don't see a problem with, but other articles

1 [REDACTED] thing that had been taken from Mr. Hernandez, which
2 [REDACTED] be brought in, I propose --

3 MS. SILVIA (interposing): Does that mean he'd
4 have to come back again?

5 MS. DILLON: If you don't object to his coming
6 out of order.

7 MS. SILVIA: I don't mind. I have no objection
8 to it being out of order.

9 THE COURT: All right, then, fine.

10 MS. SILVIA: No objection.

11 (The foregoing bench conference was concluded at this
12 point, whereupon the following proceedings took place):

13 MS. DILLON: The Commonwealth calls John Abbott.

14
15 JOHN COPE ABBOTT (Sworn)

16 DIRECT EXAMINATION BY MS. DILLON:

17 Q Sir, would you please state your name and occupation?

18 A. John Cope Abbott. I'm a forensic serologist and a
19 medical technologist.

20 Q Sir, would you please tell us something of your education
21 and technical background?

22 A. I have a Bachelor of Arts degree in premedical and
23 professional biology from Gordon College, Wenham,

1 [REDACTED] Massachusetts, a Master of Science degree in Forensic
2 Chemistry from Northeastern University in Boston, and

3 I'm a registered medical technologist.

4 Q What about your professional background, other than your
5 formal education? Have you attended any seminars or con-
6 ventions to update your education, so to speak?

7 A. Yes, I have. I regularly attend the national conven-
8 tions and local conventions of the American Medical
9 Technologists, of which I am a registered member. I
10 also am a member of the Midwestern Association of
11 Forensic Scientists, and I have taken continuing edu-
12 cation courses through several other organizations.

13 MS. DILLON: I'd like to move to have him admitted
14 as an expert, Your Honor.

15 THE COURT: Yes.

16 Q Sir, are you familiar with -- well, I'll stop. Basically,
17 what is forensic science? What does it mean?

18 A. Forensic science means, in general, means it's that
19 area of scientific analysis dealing with legal aspects.

20 Q Are you familiar with Serological Research Institutes?

21 A. Yes, I am.

22 Q What is it?

23 A. Serological Research Institutes is headquartered in

1 [REDACTED] California, and I was previously employed by Serologi-
2 cal Research Institutes, attending approximately seven
3 months of work in California, then moved back to Massa-
4 chusetts and opened up the East Coast office of Sero-
5 logical Research Institutes, which at that time was
6 then located in Burlington, Massachusetts. I then
7 moved the office to Bedford, Massachusetts and took
8 over sole ownership of the company at that point in
9 Massachusetts.

10 Q Are you familiar with something that's called the Seri Rape
11 Kit?

12 A. Yes, I am.

13 Q Would you please tell the Court and jury what the Seri Rape
14 Kit consists of?

15 A. The kit is a packaging of those materials used in the
16 investigation of that alleged sexual assault of a
17 victim. The kit contains envelopes and swabs. The
18 swabs are for oral, vaginal and rectal examinations.
19 There are glass slides presented. There are envelopes
20 to contain hair samples. There are envelopes with
21 combs to obtain combings of both head and pubic hairs.
22 There are gauze pads for obtaining saliva and nasal
23 secretions. There's a tube for obtaining a blood

1 sample. There are envelopes for photographs, if re-
2 quired or desired by the medical staff. There is an
3 envelope containing a physician's report form.

4 Q Let's start with the blood samples, sir. Why would you
5 want a blood sample, and from whom would you want a blood
6 sample in investigating a rape case?

7 A. The rape kit is intended for victim collection and so
8 the blood sample is that of the victim. The necessity
9 for that is that, if an alleged sexual assault has
10 occurred and there is an exchange of body fluids,
11 either urine, saliva, fecal matter, seminal fluid,
12 whatever there, one of the processes that a serologist
13 will be looking at is, what is the identity of the
14 material, and what are the blood groups that are
15 possibly found in that material? And in order to
16 make a proper determination of the blood grouping
17 found in the material, we'd need to know what is the
18 blood group of the victim?, because the assumption is
19 always made that it is a mixed fluid, and will, there-
20 fore, contain fluid from the victim, as well as from
21 any person who may have deposited that material.

22 Q If you should have a blood grouping -- excuse me, a blood
23 sample -- of both the victim and a suspect, would that be

1 [REDACTED] ul to you?

2 Yes, it can be very much so, the having of both samples.

3 The victim's sample is then processed for its blood
4 group or various blood groups, and then the suspect
5 or other parties are examined as well to determine the
6 blood group or blood groups present in their blood
7 and other fluids, and if there are differences, then
8 a conclusion can be drawn on any questioned sample
9 that the fluid came from one or the other party to
10 the exclusion of one or the other, if there were
11 differences, and if there were similarities, then it
12 would be -- the only statement would be made that they
13 were similar, and no conclusion drawn as to the possi-
14 ble origin.

15 Q Now, you've also told us that you have something in there
16 to check saliva. Why would you want saliva?

17 A. When we examine blood, we look for a grouping, which
18 we call Lewis Grouping. The Lewis Grouping is related
19 to what's known as secretor status. If I may explain
20 that a little bit --

21 Q Please.

22 A. Every person is either a secretor, a nonsecretor, and
23 a secretor is defined as an individual who exhibits a

1 thing called H substance, as well as their blood group.
2 In their other body fluids, that is semen, vaginal
3 fluid, saliva, nasal secretions, ear wax, perspiration,
4 and so forth. And so, if a person's a secretor, we
5 can determine their blood group from other body fluids.
6 If they are not a secretor, then we cannot determine
7 their blood group from the other fluids. However, the
8 Lewis Grouping is complex, in that it is not always
9 clear from the blood grouping what the secretor status
10 is of the person, so, therefore, we ask for a saliva
11 sample so that we can directly test the saliva sample
12 for secreted substances, and if we find them -- if we
13 find the blood group substances and there was enough
14 saliva to start with, then we're able to say whether
15 or not that person is a secretor, regardless of the
16 Lewis Grouping results.

17 Q What percentage of the population is a secretor?

18 A. Approximately 80 percent of the general population
19 are classified as blood group substance secretors.

20 Q Now, you talked about blood groups. I think most of us
21 are familiar with A, B and O. Is that all you work with?

22 A. No.

23 Q Do you work with that grouping?

1 Yes, I do. That is the classical ABO blood grouping
2 system, of which there are four major types, which I
3 believe most people are aware of, Groups A, B, AB and
4 O.

5 MS. DILLON: Your Honor, may I make some markings
6 on the upper corner?

7 THE COURT: Yes.

8 (Ms. Dillon did some printing on the chalkboard.)

9 Q How is that spelled?

10 A. S-e-c-r-e-t-o-r (spelling).

11 Q You say 80 percent of the population?

12 A. That's correct.

13 Q What percentage of the population has blood group A?

14 A. Approximately 40 percent, 35 or 40 percent.

15 Q B?

16 A. Group B, roughly 8 to 12 percent.

17 Q O?

18 A. Group O, approximately 40 to 45 percent.

19 Q ~~And~~ AB?

20 A. Group AB, 2 to 5 percent.

21 Q Do you know if secretors are more or less evenly distributed
22 amongst those four basic blood groups?

23 A. They would be distributed within roughly that eighty-

1 twenty population, because they are not associated,
2 the two systems. Secretor status is independent of
3 blood group.

4 Q Now, sir, is that the only grouping of blood that you work
5 with when you perform a forensic examination in a rape kit?

6 A. No, it is not.

7 Q What is the other grouping that you work with?

8 A. There are several others, but predominantly the one
9 of most use is called the PGM system, and that is an
10 enzyme system, which also is independent of the ABO
11 blood group; it is independent of the secretor status;
12 it discriminates among individuals, however, in that
13 not everybody has the same PGM type.

14 Q How many different kinds of PGM are there?

15 A. Conventional PGM, there are three types, which can be
16 broken down further, so that there are ten subtypes
17 of PGM.

18 Q Do you have labels for them?

19 A. Yes, we do.

20 Q What kinds of labels do you have?

21 A. They're numerical, as opposed to alphabetical. The
22 conventional PGM types are Type 1, Type 2 and Type 3,
23 and, as I said, those can further be broken down, in

1 that, PGM Type 1 is really three classifications.

2 There is a one plus, there's a one minus, and a one
3 plus one minus.

4 In Type 2, there is a 2 plus, a 2 minus, a 2
5 plus 2 minus. Let's see. (Pause) That's it for the
6 Type 2. And let's see, did I originally say that
7 Type 3 -- the Type 2, instead of type 3?

8 Q 2-1.

9 A. That's correct. I was confusing myself. The subtypes
10 on Type 2, one type is 2 plus 1 plus, 2 plus 1 minus,
11 2 minus 1 plus, and 2 minus 1 minus, so that there are
12 ten types.

13 Q Doctor, did you have occasion to be sent a rape kit by the
14 Chicopee Police Department relating to [REDACTED]?

15 A. Yes, I was.

16 Q Do you recall what item she was sent in relation to [REDACTED]
17 case?

18 A. I have my case file, which I can refer to.

19 Q Please.

20 A. There were a number of items received.

21 Q How many?

22 A. From the rape kit only?

23 Q No. Generally speaking, sir, what did you get, in order to

1 [REDACTED] our analysis in this case?

2 [REDACTED] I received 46 items.

3 Q What were they?

4 A. They were a blood sample from [REDACTED]
5 oral swabs and slides from [REDACTED], vaginal
6 swabs and slides from [REDACTED], rectal
7 swabs and slides from [REDACTED] a nasal
8 mucus sample from [REDACTED] pulled head
9 hairs of [REDACTED] head hair combings from
10 [REDACTED], pulled pubic hairs of [REDACTED]
11 [REDACTED] pubic hair combings of [REDACTED]
12 a dry blood sample of [REDACTED].

13 Q Just a moment, sir. Now, of those items that you were sent,
14 in your analysis, did you discover anything of any forensic
15 value to this case?

16 A. In examining the blood sample, I determined the blood
17 group of [REDACTED]

18 Q What's the blood group of [REDACTED]?

19 A. She is a Blood Group B, and her PGM type is Type 1
20 plus 1 minus.

21 Q Do you know if she's a key secretor?

22 A. Yes, I do.

23 Q Is she?

1 [REDACTED] In examining the blood and the saliva, she is a Group
2 B secretor.

3 Q Of the items that you have talked about so far, swabs from
4 the vagina, rectum and mouth, was any semen or anything
5 else found?

6 A. On the swabs and slides from oral, vaginal and rectal
7 samples, there was no semen detected on any of those
8 items.

9 Q What else were you sent, as far as Rosemary's clothing, in
10 particular, sir?

11 A. All right. Additionally, I received a pair of panties,
12 a pair of pantyhose, a bra, a slip and --

13 Q (Interposing) Of those items, was there anything of forensic
14 value on the panties, pantyhose or bra?

15 A. There was. There was a bloodstain. There was no
16 semen detected on those items. On the panties, there
17 was a pubic hair, which was similar to the nonpubic
18 hair standards of [REDACTED] and other than
19 that on those three items, there was nothing further.

20 Q Was there a slip of [REDACTED] that you mentioned?

21 A. Yes.

22 Q Was there anything of forensic value you noted on the slip?

23 A. There were several small bloodstains on the slip, but

1 [REDACTED] there was no semen.

2 Q [REDACTED] were the bloodstains located on the slip?

3 A. I believe the bloodstains were on the waist area.

4 Q I'm sorry?

5 A. On the waist area.

6 Q Waist area, thank you, sir. What else were you sent?

7 A. I also received an envelope containing a thread-like
8 specimen, which fell off the victim's uniform.

9 Q Did you do anything with that thread specimen?

10 A. Yes, I did.

11 Q What did you do with it?

12 A. I examined that visually and microscopically, and I
13 found it to be a purple thread, which was similar,
14 in further examination, to the purple thread from the
15 victim's coat.

16 Q From [REDACTED] coat itself?

17 A. That's correct.

18 Q What else were you sent?

19 A. I also received an envelope bearing what was identified
20 as a sample which fell off the victim's slip.

21 I also received a hair sample or an envelope
22 identified as a hair sample for the presence of semen
23 from [REDACTED], and also received an envelope

1 [REDACTED] containing photographs from the hose of [REDACTED]
2 [REDACTED], and a white uniform dress of [REDACTED]
3 [REDACTED] a purple coat of [REDACTED].

4 Q Stopping you right there, sir, now, those items, what con-
5 dition were they in, generally speaking, when they were
6 sent to you? Did something special have to be done, in
7 order to preserve evidence?

8 A. They were packaged. The coat was in a separate paper
9 bag. The panties and pantyhose, bra and slip were all
10 contained within one bag, which was contained within
11 the sexual assault collection kit, but the other items
12 were separately bagged.

13 Q Other than the items of Rosemary's that you've described,
14 did you receive anything else, in order to do your analysis?

15 A. Yes, I did.

16 Q What did you receive?

17 A. I also received items identified as from Angel Hernandez.
18 Those consisted of a pair of black Sergio jeans.

19 Q Was anything of forensic value found on the jeans?

20 A. I found nothing of significance.

21 Q Anything else?

22 A. A pair of white Levis jogging pants.

23 Q Excuse me just one minute, sir. (Pause) I'd like to show

1 [REDACTED] these, and ask you if you recognize these (indicating).
2 [REDACTED]

3 A. Yes, I do.

4 Q What are those?

5 A. Those are the white Levis jogging pants identified
6 as those of Angel Hernandez, which I received.

7 MS. DILLON: I'd like to have these marked for
8 identification.

9 ASSISTANT CLERK MAZZA: That will be F, Your
10 Honor.

11 THE COURT: Yes.

12 (The following was marked F
13 for Identification: Jogging
14 pants.)

14 Q Was anything of forensic significance found on the jogging
15 pants?

16 A. There was no blood or semen on them. There was one
17 dark brown pubic hair, which was unlike the pubic hairs
18 of [REDACTED]

19 Q What else were you sent?

20 A. I also received a black and red sweater identified as
21 that of Angel Hernandez.

22 Q I'd like to show you what's now marked for identification
23 as C. Do you recognize this (indicating)?

1 **[REDACTED]** Yes, I do.

2 Q **[REDACTED]** What is this?

3 A. That's a black and red sweater which I received.

4 Q Was there anything of forensic value found on that sweater?

5 A. There was no blood or semen nor other forensic mater-
6 ials found on that sweater.

7 Q What else were you sent?

8 A. I received a pair of black leather driving gloves.

9 Q I'd like to show you what's now been marked for identifi-
10 cation as D. Do you recognize these, sir (indicating)?

11 A. Yes, I do.

12 Q What are those?

13 A. Those are the black leather driving gloves which I
14 received.

15 Q Was anything of forensic value found on those?

16 A. There was no blood or semen detected on those.

17 Q What else were you sent?

18 A. I received a pair of white jockey shorts.

19 Q I'd like to show you these, sir, and ask you if you recog-
20 nize them.

21 A. Yes, I do.

22 Q What are those?

23 A. Those are the white jockey shorts I received.

1 [REDACTED] MS. DILLON: Your Honor, I'd like to have these
2 [REDACTED] for identification.

3 THE COURT: All right, G.

4 (The following was marked G
5 for Identification: White
6 Jockey shorts.)

6 Q Was anything of forensic value found in the Jockey shorts?

7 A. Three areas demonstrated the presence of semen. Saliva
8 was not detected in any of the areas. That blood
9 grouping showed the stains to contain H group substance,
10 which is consistent with having come from a Group O
11 Secretor.

12 Q A Group O Secretor?

13 A. That's correct.

14 Q Were you sent anything else?

15 A. I received a coat, winter kind of jacket.

16 Q I'd like to show you what's now marked for identification
17 as A. Do you recognize this (indicating)?

18 A. Yes, I do.

19 Q [REDACTED] is this?

20 A. That's the coat I received.

21 Q Was anything of forensic value found on the coat?

22 A. There was nothing of significance noted on that coat.

23 THE COAT: May I see counsel for a moment? This

1 n't be on the record.

2 (There was a bench conference off the record, in
3 accordance with the direction of the court.)

4 THE COURT: This witness is liable to take a
5 little more time. It's now past one. We'll now take our
6 luncheon recess, and we'll stand in recess until two o'clock.

7 (There was a luncheon recess beginning at 1:00 o'clock
8 P.M.. The luncheon recess ended at 2:05 o'clock P.M.,
9 whereupon the following proceedings took place in the
10 presence of the jury panel and the defendant):

11 Q Mr. Abbott, I think, when we left, you had gotten to Item
12 No. 10A on the list of items that you received in this
13 case. Would you please tell us from thereon what it was
14 that you received?

15 A I received two blood sample tubes with blood -- I
16 received two blood sample tubes containing blood
17 identified as that of Angel Hernandez.

18 Q Did you type that blood, sir?

19 A Yes, I did.

20 Q What kind does he have?

21 A The blood was Group O, PGM Subtype 1 plus.

22 Q Was he a secretor?

23 A As identified by saliva sample, yes, he was a Group O

1 Secretor.

2 Q Did you receive anything else?

3 A. Yes, I did. I also received pulled head hairs and
4 pulled pubic hairs of Angel Hernandez, and, as pre-
5 viously mentioned, a saliva sample of Angel Hernandez.
6 I also received fingernail scrapings from each of the
7 ten fingers, five right, five left.

8 Q What did you do with the fingernail scrapings from Angel
9 Hernandez that you received?

10 A. I opened the envelopes and examined the contents of
11 them and --

12 Q (Interposing) Just a minute, first of all, how would you
13 take a fingernail scraping? What do they do?

14 A. A fingernail scraping is generally taken with either
15 an orange stick, or sometimes people use toothpicks,
16 something of that nature, in order to remove what
17 debris may be collected on the fingernails. The pur-
18 pose for collecting that is to obtain only material
19 that's obtained within the fingernail, not the tissue
20 of the finger itself.

21 Q What happens with any debris that is so removed? How do
22 they get it to you?

23 A. In any number of manners. It may be then placed in

1 glassine packets or, as in this case, the debris, if
2 any, was collected on a gauze pad, folded and placed
3 within an envelope.

4 Q Did you examine the fingernail scrapings taken from Angel
5 Hernandez?

6 A. Yes, I did.

7 Q What, if anything, did you find?

8 A. Very little. Do you want it itemized by finger?

9 Q Sure.

10 A. From the left thumb, there was a very small amount of
11 debris, nothing of forensic significance. There was
12 no blood or semen.

13 The left index finger, there was nothing, other
14 than the gauze pads.

15 The left middle finger, nothing other than the
16 gauze pads.

17 The left ring finger, there was again a very small
18 amount of debris, nothing of forensic significance,
19 no blood or semen.

20 The left little finger, there was nothing, other
21 than the gauze pads.

22 From the right thumb, there was only a gauze pad.

23 The right index, only the gauze pads.

Robert J. Philbrick

Official Court Reporter

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1 The right middle finger, there were the gauze
2 pads with a small wood splinter contained therein.

3 From the right ring finger, only the gauze pads.

4 And from the right little finger, again only the
5 gauze pads.

6 Q Were you made aware of what time of day or night the scrapings
7 were taken from his fingernails?

8 A. I believe identified on the submission envelope there
9 was a time and a slip that was contained therein -- I
10 believe quarter past midnight.

11 Q Sir, is there anything unusual about finding nothing but
12 a small amount of debris on a person's fingernails at the
13 end of the day?

14 A. Depending on the hygiene of the individual, if the
15 person works nights, then perhaps the fingernails would
16 be cleaned prior to going to work. If the person has
17 worked all day, then it is not uncommon to find a
18 certain amount of debris collected under each of the
19 nails from just normal activities, but it's hard to
20 say, depending on hygiene and a number of circumstances.

21 Q Thank you, sir. Now, there was one other item submitted
22 for your analysis, I believe.

23 A. Yes, there was.

1 Q [REDACTED] was that?

2 A. That was a swab taken from the penis of Angel Hernandez.

3 Q Was there anything of forensic value found on that swab?

4 A. There was no saliva indicated, and blood grouping
5 showed the presence of H Group specific substance,
6 which would be consistent with having come from a
7 Group O secretor.

8 Q I'd like to call your attention back to item label 1T.

9 Can you tell us what that was?

10 A. Item 1T on my report was, quote, a specimen which fell
11 from the victim's slip.

12 Q What was that, sir?

13 A. That particular item turned out to be a dark black-
14 brown pubic hair.

15 Q Did you examine that item in relation to the pubic hair
16 samples of [REDACTED] and the known pubic hair
17 samples of Angel Hernandez?

18 A. Yes, I did.

19 Q What were the results of your comparison?

20 A. The specimen which fell from the slip, which was
21 pubic hair, was unlike the submitted standard pubic hairs
22 of [REDACTED] That hair, however, was
23 within the range of the known submitted hairs from

1 ██████████ Angel Hernandez.

2 Q ██████████ next item, sir, Item 1U, what was that item?

3 A. That was a hair sample submitted, cut hairs from
4 ██████████ cut head hairs, which contained
5 a substance initially purported to be semen. It was
6 identified to be semen, and the semen was demonstrated
7 to be Group O, in that it contained the H Group sub-
8 stance, and it had PGM Type 1 plus. It's where the
9 semen was from a Group O secretor.

10 Also stuck in the matrix of the hair and semen
11 was a dark black pubic hair, which was unlike the
12 pubic hairs, the submitted standard of ██████████
13 ██████████, but was within the range of the submitted known
14 pubic hairs of Angel Hernandez.

15 Q And Item No. 3, sir?

16 A. Item No. 3 was the purple coat of ██████████
17 On the left shoulder area, there were white, crusty
18 stains, which testing demonstrated them to be semen,
19 and the semen was Blood Group O, PGM Subtype 1 plus.
20 There was no saliva contained within that stain.

21 Q Just as a general question, why is it that you use various blood
22 groupings when you do a forensic analysis such as this?

23 A. In any forensic analysis, the reason for doing more

1 than one blood grouping is to profile the individual
2 depositor of that stain, in that, since all of the
3 blood group systems they have, which were described
4 here, the ABO system, PGM system and secretors, all
5 of those then are independent, one of the other.
6 That means the ABO system has nothing, no relationship
7 to the PGM type, so it doesn't matter what your ABO
8 group is to determine the PGM type. They're all
9 different, and, therefore, I can discriminate lesser
10 and lesser populations by getting more and more results.
11 It narrows the population from which a stain may have
12 derived.

13 Q Did you do a comparison on Group O, PGM 1 plus Group O
14 secretor? Could you tell us what percentage of the popu-
15 lation that would represent?

16 A. A Group O PGM Type 1 plus secretor is approximately
17 eleven percent of the Hispanic population.

18 Q And you derived that OPGM plus from some of his semen
19 samples; is that correct?

20 A. The Group O semen was found in the undergarments in
21 his Jockey shorts, as well as the swab from the penis,
22 Group O secretor. I did not type those in the PGM
23 system.

1 Q [REDACTED]uld, however, eliminate the Hispanic female population,
2 [REDACTED]n't it?

3 A. Given that there was semen present and that women do
4 not produce semen, that's correct.

5 MS. DILLON: Thank you, sir. I have no further
6 questions.

7
8 CROSS-EXAMINATION BY MS. SILVIA:

9 Q Good afternoon, Doctor. I'm Jane Silvia. I represent Mr.
10 Hernandez, and I have some questions I'd like to ask you.

11 First of all, when you were given all these items to
12 be tested, were they given to you all at once?

13 A. Yes, all of the items were submitted on the 12th of
14 December, 1987.

15 Q And are these items submitted with a summary of what the
16 case entails or whatever, that type of thing?

17 A. It varies from case to case, but in this particular
18 case, and in all the sexual assault cases collected
19 by seri kits, I received a copy of the report form
20 that's contained within that kit, and further in this
21 case reports from a police department were also sub-
22 mitted.

23 Q I see some from those reports you also knew at what time

1 [REDACTED] Hernandez has been arrested and that sort of thing;

2 [REDACTED] that correct?

3 A. Approximately, I believe, yes.

4 Q Okay. Now, as far as the blood that was found, I believe,
5 on the pantyhose of Mrs. [REDACTED] and on her panties and,
6 I believe, on her half slip, did that, to you, as an expert,
7 signify that there was how much blood present? Would it
8 give you any idea of how much blood would have been present
9 for that to have shown?

10 A. I'm not sure I follow your question.

11 Q All right. From what you were given, from the panties,
12 from the half slip and, I believe, the pantyhose of Mrs.
13 [REDACTED], from those bloodstains, just the bloodstains
14 alone, would they give you any idea of how much blood had
15 been present?

16 A. Well, I know how much blood was present on the items.

17 Q Just on the --

18 A. (Interposing) On the items themselves, on the panties
19 and the pantyhose, the crotch of those two items were
20 fairly well bloodstained, the pantyhose, in particular.
21 The slip only had very, very small bloodstains. The
22 blood on the panties and the pantyhose, from my ex-
23 perience, would be consistent with menstruation.

1 Q [REDACTED] I have a question about the O, the O, the type O
2 [REDACTED] secretor; is that correct, Doctor?

3 A. Yes.

4 Q And the O secretor with the PMG and the 1 plus, that would
5 put Mr. Hernandez, as I understand it, in eleven percent
6 of the Hispanic population?

7 A. It would put any individual with that particular
8 combination in the eleven percent, and since Mr.
9 Hernandez has that blood group, he would be within the
10 approximately eleven percent, yes.

11 Q All right, but you can't be any more specific than that,
12 is that correct, Doctor?

13 A. To say that it is his blood, as opposed to anyone else's,
14 no.

15 Q All right, thank you. Now, as far as the fingernail
16 clippings, were there actual clippings, or was it just
17 the debris that was taken?

18 A. It was only debris. The nails were not present within
19 the sample.

20 Q And it's been your testimony that there was no blood; there
21 was no blood found?

22 A. On what item?

23 Q Under -- from the scrapings from the fingernails.

1 That is correct, there was no blood or semen detected
2 on those items.

3 Q All right. And also as far as the semen that was found
4 in Mr. Hernandez' underwear, there was only semen; is that
5 correct?

6 A. There was semen. There was no saliva. There was no
7 blood.

8 Q Now, as far as the hair is concerned and hair being des-
9 cribed as being similar, could you please explain that to
10 me? Similar is not identical?

11 A. That is correct. What I mean by similar, or, as I've
12 testified to within the range of, it means that, in
13 examining a person's hair sample, a given individual
14 has more than one kind or characteristic of hair, so
15 a range is assigned to that, under a microscopic exam-
16 ination. By saying it is consistent or that it is
17 in the range of, it means there are similarities that
18 cannot exclude the hair as having come from that in-
19 dividual. It certainly is not present to be taken as
20 positive identity. It means that it could be this
21 individual. It could also be other individuals whom
22 -- who are placed at the scene at the time, at the
23 place, and so forth, who could have contributed.

1 Q [REDACTED] you, Doctor. All right, now, as far as the clothing
2 [REDACTED] was submitted from Mr. Hernandez, was there anything
3 found on the jacket?

4 A. No.

5 Q All right. Was there anything found on any of the clothing,
6 other than the underwear, that I believe had the three spots?

7 A. Right, the underwear had the seminal stains. The other
8 items had nothing of significance, other than the one
9 pubic hair in the Levis jogging pants, which was not
10 associated with any of the victim's hairs.

11 MS. SILVIA: Excuse me for one moment, please.

12 (Pause)

13 Q With your experience in the field, Doctor, could you give
14 an expert opinion as to whether or not there would be blood
15 present under fingernails if a person had inserted their
16 fingernails into blood?

17 A. If they submitted -- if they had placed their hand into
18 blood and did nothing else after that, did not scrub
19 their hands, didn't continually rub them or do any
20 other kinds of mechanical manipulations, then it is
21 possible that there could have been blood. I can't
22 say whether there would have been. Circumstances can
23 vary so significantly, but, yes, there may very well

1 [REDACTED] have been blood.

2 Q [REDACTED] not sure I understand your response. If the person --
3 there would not have been, had the person been able to
4 clean up right away; is that what you're saying?

5 A. Yes, if the person either immediately or within a
6 couple of hours, depending on when the examination went
7 on, were able to sufficiently manipulate their hands
8 and/or actually scrub them, then I would not expect to
9 find something, but failing the scrubbing or sufficient
10 manipulation, then if the hands were placed into blood,
11 I would expect to find some blood, probably.

12 Q And as far as the lack of saliva from -- I believe that there
13 was something taken from the penis of Angel Hernandez -- now,
14 for there not to have been saliva present, what would have
15 had to have taken place, Doctor?

16 MS. DILLON: Object to the form.

17 MS. SILVIA: Okay.

18 Q Let me rephrase the question, please. I notice here that,
19 from the swabbings of the penis of Angel Hernandez, there
20 was semen detected on this item, but no saliva was indicated
21 to be present?

22 A. That's correct.

23 Q And would not such saliva appear if, in fact, that person

1 [REDACTED] some sort of oral sex with another person?

2 [REDACTED] saliva may or may not appear. If the person perform-
3 ing the oral intercourse had a dry mouth or if there
4 were minimal saliva, or if there had been one prior
5 to the swabbing of the penis, then I would not expect
6 to find saliva.

7 Q Now, as far as the semen that was found present, could that
8 have been from the day before? Is that possible?

9 A. The semen found on what?

10 Q On the underwear.

11 A. Oh!

12 Q If the underwear had not been changed, if the person had
13 intercourse, say, the night before, is it possible that
14 there would still be semen in the underwear the next day?

15 A. If a given individual had worn the garment previously,
16 and if there had been intercourse, if it were a female,
17 or even without intercourse, it is not uncommon to
18 find semen in a man's Jockey shorts.

19 [REDACTED] MS. SILVIA: I have no further questions at this
20 time. Thank you.

21

22 REDIRECT EXAMINATION BY MS. DILLON:

23 Q Doctor, based on your experience, is it unusual to find

1 [REDACTED] in a woman's head hair?

2 In my examination of sexual assault cases, or in normal
3 individuals, one does not expect to find semen in an
4 individual's hair, unless intercourse or ejaculation
5 had occurred. Since women don't produce semen, it's
6 hard to expect otherwise.

7 Q And just for clarification, this is eleven percent of the
8 Hispanic population (indicating)?

9 A. That is correct.

10 Q Doctor, I'd like to show you what has been marked as B
11 for Identification. Are you familiar with these (indicating)?

12 A. Yes, I am.

13 Q What is it?

14 A. It is the kind of scrub brush and material commonly
15 found in hospital settings, particular emergency rooms
16 and/or surgical suites.

17 Q What effect, if any, would using that substance on finger-
18 nails have, as far as normal debris is concerned?

19 A. Its purpose is to remove the debris, so, therefore,
20 if it were used in a consistent manner, as its supposed
21 to be, to scrub nails, it would remove debris entirely.

22 Q Would it have any effect on blood?

23 A. It would remove blood.

1 Q [REDACTED] Thank you. Doctor, do you have a clean copy of your report,
2 [REDACTED] to speak?

3 A. I have a copy without letterhead, and it's unsigned,
4 but I'd be willing to sign it, if you need it.

5 Q Would you please?

6 A. (The witness signed the last page of a document.)

7 MS. DILLON: Thank you. I'd like to introduce
8 this, Your Honor, without objection.

9 THE COURT: Exhibit No. 5, I believe.

10 ASSISTANT CLERK MAZZA: Exhibit 5, yes, Your
11 Honor.

12 (The following was marked Ex-
13 hibit 5: Analysis report by
14 Dr. John Cope Abbott.)

15 RECROSS EXAMINATION BY MS. SILVIA:

16 Q Thank you. Doctor, with this type of scrub brush used to
17 clean the nails, would it leave any kind of residue? Is
18 there soap in it?

19 A. Yes, there is a cleansing agent, and if the hands are
20 not rinsed, there may be traces.

21 Q And to your knowledge, working in a hospital, is it rela-
22 tively accessible, a scrub brush such as that relatively
23 accessible to people who have access to hospitals?

1 [REDACTED] depends on the location in the hospital at which
2 [REDACTED] a person works, but especially in the surgical suites
3 area or emergency room area or, perhaps, even on nursing
4 floors, nurseries again are again other major areas
5 where scrub brushes like that are commonly used.

6 Q Nursery, meaning also maternity area?

7 A. Nursery and maternity. Again I mentioned nurseries
8 simply because, if you're a new parent or visiting a
9 parent, visiting individuals are required to use a
10 scrub brush similar to that prior to seeing newly-born
11 infants.

12 MS. SILVIA: Thank you, Doctor.

13 MS. DILLON: I have nothing further, Your Honor.

14 THE COURT: All right, thank you.

15 MS. DILLON: The Commonwealth calls Officer Jeanne
16 Nowak.

17
18 JEANNE NOWAK (Sworn)

19 DIRECT EXAMINATION BY MS. DILLON:

20 Q Please state your name. Spell it for the record.

21 A. My name is Officer Jeanne Nowak. That's J-e-a-n-n-e
22 (spelling), and the last name is N-o-w-a-k (spelling).

23 Q How are you employed?