IN THE CHANCERY COURT FOR THE STATE OF TENNESSEE TWENTIETH JUDICIAL DISTRICT, DAVIDSON COUNTY, PART III

ABU-ALI ABDUR'RAHMAN,)	
)	
Plaintiff,)	
)	
VS.)	NO. 02-2236-III
)	
DON SUNDQUIST, et al.,)	
)	
Defendants.)	

MEMORANDUM AND ORDER

There are persons in our society who decry the use of the death penalty, and there are persons who decry the resources, time and concern expended on death row inmates. Those views are discourse in a vocal democracy. They are not, however, the issue or the framework of the case before this Court.

It is the law of the land that the death penalty is a constitutionally permissible punishment, and it is the law of the land that resources, time and concern shall be expended to insure that punishment by death is not inflicted cruelly and inhumanely. It is within this framework and these bounds that this case arises.

A death row inmate, Abu-Ali Abdur'Rahman, who has been condemned to punishment by death for committing first degree murder,¹ asserts that Tennessee's method of execution by lethal injection creates an unreasonable risk that the inmate will be paralyzed

¹"The death sentence was imposed pursuant to the jury's finding of three aggravating circumstances: (1) the defendant was previously convicted of one or more felonies whose statutory elements involved the use of violence to the person; (2) the murder was especially heinous, atrocious or cruel in that it involved torture or serious physical abuse beyond that necessary to produce death; and (3) the murder was committed while the defendant was engaged in committing, or was an accomplice in the commission of, or was attempting to commit, or was fleeing after committing or attempting to commit, any first-degree murder, arson, rape, robbery, burglary, theft or, kidnapping." *Abu-Ali Abdur 'Rahman v. Bell*, 226 F.3d 696, 697-99 (6th Cir. 2000).

but will not be rendered unconscious before he is administered horrific painful drugs. The effect, the inmate argues, of such an occurrence is that before the inmate expires he is subjected to torturous pain but because of his total paralysis he is unable to communicate his consciousness and viewers are unable to perceive that the inmate is conscious. The unreasonable risk of this occurring, the inmate asserts, constitutes cruel and inhumane punishment, and is unconstitutional.

The State contends that no method can be error free, and, in any event, the risk alleged by the plaintiff, under Tennessee's lethal injection method, is remote and, therefore, not violative of the constitution.

After conducting an evidentiary hearing where the Court considered the testimony of a veterinarian, an anesthesiologist, a patient who endured an unanesthetized procedure, the warden in charge of the execution in issue, and the State Medical Examiner, the Court concludes that the plaintiff has failed to demonstrate that Tennessee's method of lethal injection is unconstitutional.

The proof established that Tennessee's method is not state of the art. It was developed simply by copying the same method currently in use by some thirty other states. The method could be updated with second or third generation drugs to, for example, streamline the number of injections administered. Moreover, the method's use of Pavulon, a drug outlawed in Tennessee for euthanasia of pets, is arbitrary. The State failed to demonstrate any need whatsoever for the injection of Pavulon.

But whether dated or discomfiting in terms of modern veterinary science, the method was shown by the proof to be reliable in rendering an inmate unconscious, if not dead, before the paralytical and lethal painful drugs take effect. Thus, the plaintiff failed to demonstrate that Tennessee's lethal injection method poses a reasonable likelihood of a cruel or inhumane death. The findings of fact and conclusions of law on which the Court bases its determination are as follows.

The plaintiff, Abu-Ali Abdur'Rahman, is a death row inmate who has been condemned to punishment by death for first degree murder. The plaintiff is scheduled to be executed on June 18, 2003, by the State of Tennessee using the lethal injection method.

The plaintiff filed this lawsuit asserting that Tennessee Code Annotated section 40-23-114, death by lethal injection, as it shall be applied by the Tennessee Department of Correction to the plaintiff's execution, violates the prohibition against cruel and inhuman treatment provided by the Eighth Amendment of the United States Constitution, and Article I, § 16 of the Tennessee Constitution. During the evidentiary hearing of this matter, the plaintiff also argued that the application of section 40-23-114 violates his constitutional right of free access to the courts guaranteed by the United States Constitution.

The case is before this Court pursuant to Tennessee Code Annotated section 4-5-225 which vests authority in the Chancery Court of Davidson County to determine whether the application of a statute within the primary jurisdiction of an agency (in this case the Tennessee Department of Correction) is unconstitutional.

The method of lethal injection in Tennessee consists of the injection of three drugs: sodium thiopental (Pentothal), pancuronium bromide (Pavulon), and potassium chloride. Warden Bell testified that prior to the execution he uses a kit to prepare the Pentothal. The Pentothal comes in a powder form which he is required to mix with sterile water with the use of syringes. He sticks a needle into the sterile water vial, withdraws the necessary amount to mix with the Pentothal powder. He then shakes the mixture and draws it into a big syringe with sterile water. The shelf life of the Pentothal mixture is very short, 24 hours or less. The shelf life of the powder is much longer, in the range of six months. That is why the Pentothal is not converted to a liquid state until just before the execution. The Pavulon and potassium chloride come in a liquid state and do not have to be mixed. Seven syringes are prepared: one syringe of Pentothal, two syringes of saline, two syringes of Pavulon, two syringes of potassium chloride. Then seven exact replicas of these syringes are prepared as backups in case the first injection procedure fails and a second must be used. The syringes are labeled with numbers 1 through 7 in the sequence that they are to be injected. They are also color coded, i.e. a color corresponds with the substance in the syringe. The syringes are not labeled with the names of the substances in them.

After the inmate is transported to the execution chamber by gurney, IV catheters are placed in both of the inmates arms by certified EMT paramedics. If necessary there are execution team members, prison staff, who have been through a course of training in intravenous therapy who can also perform this function. In the event that the IV technicians are unable to establish a port due to the unavailability of a suitable vein, a physician is available to perform a "cut down" procedure where an incision is made to gain direct access to a vein. The warden, deputy warden, and a chaplain are present in the execution chamber. After the flow of normal saline is begun, the paramedics leave the execution chamber.

The warden then signals the executioner, who is located in a chamber next to the execution chamber, but behind a window with a portal for the IV lines. The warden gives the word to the executioner to sequentially inject the Pentothal, saline, Pavulon, saline and sodium chloride into the IV tubing connected to the catheter placed in the inmate's arm. A quick push of the syringes is required.

There is a camera above the gurney in the death chamber and a monitor in the executioner's room which allows the executioner to observe the flow of the drugs to the IV. In addition, the warden is located in the execution chamber, approximately a foot from the inmate's head, and the warden can see the flow of the drugs through the IV tubing and can notify the executioner if the line becomes clogged or if other visible problems are encountered.

Following the injection of the drugs and a five-minute waiting period, the condemned inmate is examined by a physician, who waits in an area adjacent to the death chamber during the administration of the drugs, and death is pronounced.

A significant part of the plaintiff's challenge to Tennessee's lethal injection method is the use of Pavulon. Dr. Heath, an assistant professor of clinical anesthesia at Columbia University who obtained his bachelor of arts from Harvard University in 1983 magna cum laude and graduated with honors from University of North Carolina Medical School in 1987 and whose practice is devoted one-third to clinical patient care, one-third education of residents and fellows and one-third research, testified that Pavulon is a neuromuscular blocking agent. Its effect is that it renders the muscles unable to contract but it does not affect the brain or the nerves. It is used in surgery to assure that there is no movement and that the patient is securely paralyzed so that the surgery can be performed without contraction of the muscles. Pavulon is never applied until the patient is under a proper plane of anesthesia. The anesthesia must first be administered such that the patient is unconscious and does not feel, see or perceive the procedure. Once the anesthesia has taken effect, the Pavulon paralyzes the patient so that the surgery can be performed. Dr. Heath testified to what he termed the "chemical veil" of Pavulon. He stated that Pavulon, because of its paralytic effect on the muscles, makes the patient look serene. The face muscles cannot move or contract or any muscles to show pain or suffering.

Testimony was also provided by Carol Weihrer who endured a surgery where Pavulon was administered and the anesthesia was not effective. Ms. Weihrer testified that she was able to hear, perceive and feel everything that was going on in her surgery. She was able to think. Torturously she was unable to move because of the effects of the Pavulon. She testified that she was attempting with all of her will to communicate that she was still conscious but that she was unable to because of the Pavulon. Dr. Geiser, a professor of veterinary science at the University of Tennessee School of Agriculture, testified similarly to the effect of Pavulon on animals. He stated that before 1980 it was not the practice to use Pavulon and that it is not acceptable under the American Veterinary Association guidelines to use Pavulon by itself or in combination with other drugs in pet euthanasia. He testified that the use of Pavulon in euthanasia of animals has been outlawed in Tennessee and a number of other states. Dr. Geiser testified that Pavulon could potentially produce an inhumane situation with animals because it causes respiratory arrest without arrest of the central nervous system. He testified that the effect is like asphyxiation.

Significantly, there was no proof from the State that the Pavulon is necessary to the lethal injection process. No proof was provided by the State for the use of Pavulon in its lethal injection process. The State's expert, Dr. Levy, on cross-examination, testified that he did not know of any legitimate purpose for the use of Pavulon in the Tennessee lethal injection process. He agreed that the injection of Pavulon without anesthesia would be a horrifying experience.

Dr. Heath testified that if the Pavulon were eliminated from the Tennessee lethal injection method, it would not decrease the efficacy or the humaneness of the procedure.

In this matter the Court shall analyze the plaintiff's claims under the Eighth Amendment to the United States Constitution and Article I, § 16 of the Tennessee Constitution. To the extent to which the plaintiff asserts that Tennessee's lethal injection method violates his rights to substantive due process by exposing him to an unnecessary risk of pain and suffering, the Court concludes as a matter of law that such a claim is better analyzed under the cruel and unusual punishment provision of the State and Federal Constitutions. *See County of Sacramento v. Lewis*, 523 U.S. 833, 118 S. Ct. 1708, 1714, 14 L. Ed. 2d 1043 (1998), quoting *Graham v. Connor*, 490 U.S. 386, 395, 109 S. Ct. 1865, 104 L. Ed. 2d 443 (1989) ("where a particular amendment provides and explicit textual source of constitutional protection against a particular sort of government behavior, that amendment, not the more generalized notion of substantive due process, must be the guide for analyzing these claims."). In United States v. Lanier, 520 U.S. 259, 272, 117 S. Ct. 1219, 137 L. Ed. 2d 432 n.7 (1997), the Court explained that if a constitutional claim is covered by a specific constitutional provision such as the Fourth or Eighth Amendment the claim should be analyzed under the standard appropriate to that provision not under substantive due process.

The law which this Court is required to apply in determining the plaintiff's claims are the United States and Tennessee Constitutions as ruled upon by the United States Supreme Court and the Tennessee Supreme Court.

The United States Supreme Court has explained that the Eighth Amendment prohibition of the United States Constitution is that cruel punishment involves torture or a lingering death. *In re Kemmler*, 136 U.S. 436, 447, 10 S. Ct. 930, 933, 34 L. Ed. 519, 524 (1890). The Eighth Amendment prohibition forbids punishments that involve unnecessary and wanton inflictions of pain. *Estelle v. Gamble*, 429 U.S. 97, 103, 97 S. Ct. 285, 290, 50 L. Ed. 2d 251 (1976).

The Tennessee Supreme Court has held that no greater protection is provided under Article I, § 16 of the Tennessee Constitution than under the Eighth Amendment to the United States Constitution, *Cozzolino v. State*, 584 S.W.2d 765, 767 (Tenn. 1979), and challenges under Article I, § 16 of the Tennessee Constitution use the analysis and holdings of federal courts on the Eighth Amendment.

The United States Supreme Court has held that in determining whether a method of execution violates the Eighth Amendment prohibition against cruel and unusual punishment, a court shall examine (1) whether the method of execution comports with contemporary norms and standards of society; (2) offends the dignity of the person and society; (3) whether it inflicts unnecessary physical pain; and (4) whether it inflicts unnecessary psychological suffering. *Weems v. United States*, 217 U.S. 349, 30 S. Ct. 544, 54 L. Ed. 793 (1910).

As to whether a risk of suffering creates a constitutional violation, the United States Supreme Court in *Louisiana ex rel. Francis v. Resweber*, 329 U.S. 459, 464, 67 S. Ct. 374, 91 L. Ed. 422 (1947) (plurality opinion) held that a method of execution is viewed as cruel and unusual punishment under the federal constitution when the procedure for execution creates a substantial risk of wanton and unnecessary infliction of pain, torture or lingering death. In addressing the constitutionality of a second attempt at an electrocution after the first attempt failed, the Court rejected the defendant's argument that subjecting him to a second electrocution constituted cruel and unusual punishment. The Court stated that the fact that an unforeseeable accident prevented the prompt consummation of the sentence did not add an element of cruelty to a subsequent execution. *Id*.

Finally, the United States Supreme Court has stated that the determination of whether a punishment violates the Eighth Amendment considers the evolving standards of decency that mark the progress of a maturing society. *Estelle v. Gamble*, 429 U.S. 97, 103, 97 S. Ct. 285, 290, 50 L. Ed. 2d 251 (1976). Evidence of legislative trends is particularly relevant when measuring evolving standards of decency. *Penry v. Lynaugh*, 492 U.S. 302, 331, 109 S. Ct. 2934, 2953-54, 106 L. Ed. 2d 256 (1989). In *Atkins v. Virginia*, the Supreme Court held that executions of mentally retarded criminals were "cruel and unusual punishments" prohibited by the Eighth Amendment. 536 U.S. 304, 122 S. Ct. 2242 (2002). Significant in this decision was the review of recent trends of state legislatures prohibiting the use of the death penalty for mentally retarded criminals. These trends were found to be representative of "evolving standards of decency." *Id.* at 321.

Starting with an assessment of the factors established by the United States Supreme Court, the first being evidence of norms and standards, the Court finds the most compelling evidence to be Warden Bell's testimony that some 30 states use the same lethal injection method as Tennessee, including use of Pavulon. Tennessee copied other states in developing its method.

In opposition to Warden Bell's testimony was the plaintiff's expert Dr. Heath. He was critical of the Tennessee lethal injection method in its use of Pentothal, the physical separation of the executioner (who administers the drugs to the prisoner in another room with long tubing that run from the prisoner through a portal in the wall to a syringe held by the executioner), the absence of a physician in the execution chamber to assure intake of the Pentothal, and the failure to label the syringes with the names of the drugs—as deviations from standard anesthesiological practice.

Dr. Heath criticized the use of Pentothal, stating that he had not used it in the last five years. Its use, he stated, is mostly as an induction drug to prepare a patient for another anesthetic. Sodium pentobarbotol is more stable and is more commonly used. He also testified that the person administering the drugs should be in close physical proximity to assure proper intact and that a physician should attend the intact of drugs. He additionally asserted that it was unacceptable to color code the syringes or number them in the absence of labeling them with the drugs they contain.

Dr. Heath's testimony, when weighed against the proof that some 30 states use the same lethal injection method as Tennessee, did not persuade the Court that Tennessee's lethal injection method does not comport with standards and norms. While somewhat applicable, the surgical setting in which Dr. Heath's experience is from, is nevertheless distinguishable from an execution.

A paramount concern in an execution is security. The condemned has committed a violent act, and he is facing termination of life. Under these circumstances it is necessary to deviate from the surgical norm of physical proximity. It is necessary, for security reasons, to assure that the executioner is securely removed from the condemned. The separateness of the executioner and the syringes containing the lethal dosages, while it does decrease the executioner's ability to monitor intake of the Pentothal, is for good reason. To make up for

the separateness of the executioner, the Tennessee lethal injection method has a TV monitor in the execution room, a camera above the gurney, and the warden is located in the execution room within a foot of the condemned's head. The warden has been trained on detecting problems such as crimping of the IV line, or failure of the injection to go into the vein. Simply stated, the standard for an operating room of physical proximity is not a completely accurate analogy.

The same is true with labeling. In a surgical setting, many drugs are present and available. Syringes must be labeled to distinguish them from other drugs in the area. Moreover the physicians administering the drugs are more familiar with chemical names than numbering or color coding. Chemical name labeling is an effective method in a surgical setting.

The holder of the syringes, the executioner, however, is not a doctor. Color coding and sequential numbering is as effective, if not more so, than chemical name labeling, for a nonphysician. Also unlike a surgical setting, no other drugs or syringes are present—only the fourteen necessary for the lethal injection.

The use of Pentothal in the execution process, as well, is different from a surgical setting. Dr. Heath testified that Pentothal is used currently as mostly an induction drug and not the dominant agent to render the patient unconscious. In surgery, however, maintaining viability is critical. That is not a concern in the execution. A large dose of Pentothal is applied in the Tennessee lethal injection method—five grams. The testimony from the experts was that a dosage in this amount in and of itself should result in death. Dr. Levy testified that in the case of the Coe execution the administration of the five grams of Pentothal was the cause of death.

Another difference between a surgical setting and an execution is that the Tennessee Medical Association has issued an opinion that physicians violate ethical standards if they participate in an execution. While the Tennessee Supreme Court has rejected that opinion, nevertheless there was testimony that there are individualized standards of ethics among physicians not to participate in an execution. Those individual ethical principles, as a practical matter, render it difficult if not impossible to find an individual physician who would consider it consistent with his professional ethical standards to monitor the induction of a lethal injection. Dr. Heath's requirement of a physician monitoring is an unlikely one.

In addition to Dr. Heath's testimony concerning norms and standards, the plaintiff used the testimony of Dr. Geiser, a professor of veterinary science at the University of Tennessee. He testified that in animal euthanasia it is significantly below the standard of acceptable practice to use an injection of Pavulon. The use of that drug in pet euthanasia is outlawed in Tennessee and a number of other states.

Dr. Geiser's testimony gives superficial expert support to the plaintiff's argument that if Pavulon is unacceptable for pet euthanasia it necessarily is unacceptable for euthanasia of human beings. But to substantively be able to use animal euthanasia as an analogy for a human execution, one has to know the reason why Pavulon was outlawed in pet euthanasia. Dr. Geiser provided some of that information. He testified that the medical problem with Pavulon in animal euthanasia is that Pavulon masks whether the animal is really unconscious or dead. What was not testified to but is clear from Tennessee's statutes on pet euthanasia is that animal euthanasia is carried out much more frequently in less regulated circumstances² than the termination of human life such that there is a need to outlaw the use of Pavulon in pet euthanasia. Thus, what the Court does conclude as to the outlawing of Pavulon in Tennessee in pet euthanasia is that it is not against the norm to use Pavulon in lethal

²"Euthanasia shall be performed only by a licensed veterinarian, Tennessee veterinarian medical technician or an employee or agent of a public or private agency, animal shelter or other facility operated for the collection, care and/or euthanasia of stray, neglected, abandoned or unwanted nonlivestock animals, provided that the Tennessee veterinarian medical technician, employee or agent has successfully completed a euthanasia-technician certification course. The curriculum for such course must be approved by the board of veterinary medical examiners and must include, at a minimum, knowledge of animal anatomy, behavior and physiology; animal restraint and handling as it pertains to euthanasia; the pharmacology, proper dosages, administration techniques of euthanasia solution, verification of death techniques, laws regulating the storage, security and accountability of euthanasia solutions; euthanasia technician stress management and the proper disposal of euthanized nonlivestock animals." TENN. CODE ANN. § 44-17-303.

injections but the use of Pavulon requires that the accused be sufficiently anesthetized prior to the injection of the Pavulon to assure unconsciousness.

The Court, therefore, finds that neither the testimony of Dr. Heath on anesthesiological standards nor Dr. Geiser's testimony on veterinary euthanasia outweighs the evidence that 30 some states use the Tennessee method. The Tennessee method comports with norms and standards.

Where the plaintiff's argument concerning the Tennessee statutory prohibition against the use of Pavulon in animal euthanasia is most compelling is in assessing, under the standard articulated by the United States Supreme Court, whether the method of execution offends the dignity of the person and society. As Dr. Geiser and Dr. Heath explained, the problem with Pavulon and why it was medically outlawed for use on pets is that it paralyzes all the muscles but not the brain, consciousness or nerves. Thus, the subject gives all the appearances of a serene expiration when actually the subject is feeling and perceiving the excruciating painful ordeal of death by lethal injection.

Coupled with the testimony of the paralytic effect of Pavulon is that the State failed to provide any proof of the reason for its use in the lethal injection method. There was no testimony that the purpose of Pavulon in Tennessee's lethal injection method was to hasten death. The testimony was that Pavulon has no pain relieving properties. Simply stated, the record is devoid of any expert testimony on behalf of the State of Tennessee to explain why Pavulon is used.

From this void of proof and in conjunction with the proof on the effects of Pavulon, the plaintiff argues that the reason Pavulon is used by the State is to mask or put a chemical veil over what death by lethal injection really looks like. The Pavulon gives a false impression of serenity to viewers, making punishment by death more palatable and acceptable to society. The plaintiff's chemical veil argument raises the age-old concern of a society conceived as colonists and schooled during maturing in the abuses of power by government. The chemical veil taps into every citizen's fear that the government manipulates the setting and gilds the lily, whether it be with reporting on the economy or election results, to orchestrate and manipulate public reaction.

The proof before this Court did not demonstrate that the State, in creating Tennessee's lethal injection method, included use of Pavulon to create a chemical veil. Instead, the proof demonstrated that, if anything, Pavulon was included by the State out of ignorance and by just copying what other states do. In preparing the lethal injection method used by Tennessee, the proof revealed that the State did not consult physicians or pharmacologists. The State "copy-catted," using what a majority of other states were doing, including the use of Pavulon. The Court, therefore, concludes that there was no showing of malice or an attempt to create a chemical veil in Tennessee's use of Pavulon.

But regardless of the State's ignorance and even if it did not intend to create a chemical veil, the fact that Pavulon has the property of creating a chemical veil raises the issue of whether there is offense to the dignity of the prisoner and the public. As will be discussed in more detail later in assessing whether the Tennessee lethal injection method inflicts unnecessary physical suffering and psychological suffering, the proof demonstrated that there is less than a remote chance that the condemned would ever be conscious by the time the Pavulon is administered. The chances of the Pavulon acting as a chemical veil and working a deception on the public are so much less than remote, that the Court concludes that its use does not offend the dignity of the prisoner or the public.

But the use of Pavulon is problematic because it is unnecessary. As stated above, the State failed to demonstrate any reason for its use. The record is devoid of proof that the Pavulon is needed. Thus, the Court concludes that, while not offensive in constitutional terms, the State's use of Pavulon is "gilding of the lily" or, stated in legal terms, arbitrary. The final matter the Court must examine according to the factors set out by the United States Supreme Court is whether the method inflicts unnecessary physical pain and psychological suffering.

All of the experts testified that if the lethal injection method proceeds as planned it will not result in physical or psychological suffering: the five grams of Pentothal will render the prisoner unconscious or dead, Pavulon is injected and paralyzes the prisoner, and the sodium chloride stops the heart.

The focus of the dispute is whether there is a reasonable likelihood that the Pentothal will not take effect such that the prisoner feels the full affects of the Pavulon and the sodium chloride and, because of the Pavulon, it is unknown to those witnessing the execution that the prisoner is being subjected to such torture. Sodium chloride is extremely painful. Pavulon, as explained above, is psychologically horrific. There is no doubt, as established by the testimony of Ms. Weihrer, the patient who underwent an unsuccessful anesthesia administration, that failure of the anesthetic to block consciousness and allow the patient to experience the Pavulon is torturous.

The plaintiff attempted to establish that there is a reasonable risk under Tennessee's lethal injection method that the inmate will not be rendered unconscious by attacking the competency of almost every step of the procedure. Dr. Heath criticized the risks associated with Pentothal which, once in liquid form, has a short shelf life such that its potency could be compromised. The use of seven syringes, he testified, is a complex procedure which he has never done and is difficult on the executioner to maintain an aggressive push. The numerous contingencies on administering an IV—missing the vein, an extravenous injection, solution washing back into the IV bag—require a physician to monitor the intake of the Pentothal not just paramedics. The physical distance between the executioner, the person pushing the Pentothal syringe, and the inmate is a risky monitoring system. That there is no reason for the use of Pavulon, Dr. Heath testified, significantly increases the risk of suffering in the procedure. That the fall back procedure for inability to locate a vein is a cut down

procedure instead of a percutaneous, more modern procedure, increases the risk of suffering. When all of these contingencies are considered and that the Tennessee method is, according to Dr. Heath "sloppy" and not state of the art, he opined that the procedure is reasonably likely to not render the prisoner unconscious before the injection of the painful drugs.

Dr. Heath's impressive education and practice credentials and his excellent explanations during his testimony made him a credible witness. But his testimony was not based on direct experience with an execution. His testimony was hypothetical and metaphysical.

In contrast was the testimony of Dr. Bruce Levy, the State Medical Examiner and the Medical Examiner for Davidson County, who performed the autopsy on prisoner Coe after he was executed in Tennessee by the same method proposed to be used on the plaintiff. Dr. Levy's autopsy is direct evidence of the effects of the Tennessee lethal injection method in question in this case.

The autopsy revealed that the level of Pentothal remaining in the body after prisoner Coe's execution was not only therapeutic, i.e. the prisoner lost consciousness before the effects of the Pavulon, but it was at a lethal level. The therapeutic, lethal level of Pentothal in the body following execution demonstrates that the potency of the Pentothal was in no way compromised and that there was no problem with the IV injection and intake. Dr. Levy testified that he observed that there were two "stick" points in the arm which indicated that the first time the IV was attempted on prisoner Coe another site had to be obtained. Despite that a second attempt had to be made to put in the IV, the procedure was nevertheless completed effectively. This proof of the two sticks demonstrates the ability of the IV team to effectively complete the process when encountering difficulty. The results of the Coe autopsy, direct evidence of the effects of Tennessee's lethal injection method, carry great weight with the Court.

Like Dr. Levy, Warden Bell also provided direct testimony of the effects of the Pentothal based on his presence in the execution chamber during the Coe execution. Warden Bell testified that shortly after the Pentothal was pushed through the IV to prisoner Coe, the prisoner said something along the lines that he "was gone" and then the prisoner was unconscious.

In contrast to the State's direct evidence of the effects of the Tennessee lethal injection method, Dr. Heath's only testimony in that regard was his viewing of the Timothy McVeigh execution. Dr. Heath testified that he thought he saw tearing by prisoner McVeigh. Dr. Heath testified that this would have indicated that the prisoner was not unconscious and was feeling the effects of the painful drug injection. Significantly, however, Dr. Heath did not present to the Court any autopsy reports supportive of his theory about the McVeigh execution or autopsy reports from any other executions to demonstrate that the initial drug was ineffective in rendering the prisoner unconscious.

Also counterpoised against Dr. Heath's testimony of the deficiencies of Tennessee's lethal injection method was the testimony of Warden Bell of the precautions taken and training engaged in to minimize error. Warden Bell testified that he does not mix the Pentothal to a liquid form until the time of the execution. To lower any risks with the Pentothal, Warden Bell has a kit which is provided by the medical supplier where the Pentothal comes in powder form and contains an expiration date. Warden Bell trains regularly on preparing the Pentothal. Warden Bell also testified that he is the one who is in charge of the execution process. He signals when the injection is to begin and if there is a problem he decides what to do. Warden Bell is located one foot from the head of the prisoner. Warden Bell testified that once a month he and other persons are trained on the execution process including insertion of an IV catheter.

As to the risk posed by use of paramedics in the IV process, the Court credits Dr. Levy's testimony that it is reasonable in his expert opinion to assume that paramedics would not have any trouble inserting an IV considering their training and that they are required to do so under all kinds of emergency situations.

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The Court also credits Dr. Levy's testimony that a cut down procedure to find a vein if the IV fails, while not as state of the art as a percutaneous procedure, is nevertheless an acceptable back-up procedure to use to obtain an injection site. The Court further credits Dr. Levy's testimony that it is a simple procedure which physicians are taught in medical school, and does not pose an unreasonable excessive risk.

The Court therefore concludes that the proof demonstrated that there is less than a remote chance that the prisoner will be subjected to unnecessary physical pain or psychological suffering under Tennessee's lethal injection method. That proof is not sufficient to demonstrate that the punishment is unconstitutional. *Louisiana ex rel. Francis* v. Resweber, 329 U.S. 459, 464, 67 S. Ct. 374, 91 L. Ed. 422 (1947).

It is therefore ORDERED, pursuant to Tennessee Code Annotated section 4-5-225, which authorizes the Chancery Court of Davidson County to pass on the legal validity of a statute as administered by an administrative agency of the State, that the application by the Tennessee Department of Correction of lethal injection pursuant to Tennessee Code Annotated section 40-23-114 does not violate the United States Constitution or the Tennessee Constitution. Accordingly, the plaintiff's petition is dismissed with prejudice.

Consistent with the rules of chancery court that all orders to be final must tax costs, and consistent with the rule that the nonprevailing party bears the costs, the Court taxes costs to the plaintiff.

> ELLEN HOBBS LYLE CHANCELLOR

cc: Bradley MacLean William Redick, Jr. Stephanie Reevers