

THE CONNECTION BETWEEN MOVEMENT DISORDERS AND TRAUMA



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Much attention has been devoted to concussion and related forms of brain trauma that produce symptoms such as headaches, memory difficulties, and pain in various parts of the body.¹ A little known but very problematic consequence of a brain injury is that of a movement disorder.² This malady is an all-encompassing term that refers to a constellation of neurological issues that cause involuntary or voluntary movements or abnormal positioning of a body part.³ Examples include tics, tremors, dystonia, chorea, Parkinson's disease, paroxysmal dyskinesias and other forms of hyperkinesias.

A plethora of court cases exist involving movement disorders but most focus on a specific problem like Parkinson's disease or dystonia. These lawsuits include obvious issues such as the failure to diagnose or properly treat the patient, Social Security disability and worker's compensation benefits, and whether trauma can aggravate the condition. The more creative cases involve whether medication or vaccines can cause or exacerbate movement disorders, off label use of medication, abnormal movements causing handwriting and forgery issues and whether welding fumes play a role in the development of Parkinson's disease. This article will begin with an overview of the settings in which movement disorders have been litigated. It will then focus on trauma and its relationship to a specific problem such as dystonia or tics.

MOVEMENT DISORDERS

The Supreme Court of the United States has entertained movement disorders in the context of whether companies that sell generic drugs can be sued for their failure to provide warnings that differ from the labels provided by the brand name manufacturers.⁴ One such case involved the taking of a generic drug for heartburn that allegedly caused a movement

disorder.⁵ The court rejected the lawsuits and held that federal law preempted the claims and the defendants did not have to provide labeling that differed from the brand name label approved by the FDA.⁶

On the other hand, a \$20 million settlement was reached in a dispute involving the off-labeling promotion of Xyrem, a medication approved by the FDA for the treatment of day time sleepiness.⁷ The company admitted that it improperly promoted the medication for the care of movement disorders, including Parkinson's disease, even though that use had not been approved by the government.⁸ Another lawsuit involved Prozac and Lithium.⁹ The facts show that a woman was being treated for a bipolar disorder and had been given Lithium. Subsequently, the treating physician prescribed Prozac. The plaintiff then began having trouble walking and developed seizures. She was hospitalized and diagnosed with a permanent drug-induced movement disorder caused by the mixture of the two drugs.¹⁰ Both the prescribing psychiatrist and drug manufactures were sued. It was alleged that the doctor was negligent in not properly monitoring his patient and the drug manufactures were sued for failing to warn of the dangers of combining the medications. The doctor asserted that he had no duty to monitor the patient and that her movement disorder was psychogenic and not drug induced.¹¹ The drugs companies jointly settled their liability for \$200,000 and a defense verdict was entered on behalf of the psychiatrist.¹²

A car accident was the backdrop for the denial of a claim for medical benefits in *Nail v. Farmers Insurance Exchange*.¹³ The plaintiff was rear ended while stopped at a light and was diagnosed with a movement disorder involving the basal ganglia.¹⁴ The matter proceeded to trial and the plaintiff was awarded more than \$60,000 in allowable medical expenses.¹⁵ The court, however,

denied the plaintiff's request for attorney's fees based upon the testimony of the IME physician who stated that he "observed several inconsistencies in the plaintiff's test performance" and that she had "multiple indicators that non-neurological factors had significant bearings on these results."¹⁶

In *Kraft v. Colvin*,¹⁷ a claim for Social Security disability benefits was advanced as the results of the claimant's difficulty speaking and involuntary movements. The Administrative Law Judge found that Kraft suffered from a psychogenic movement disorder that involved spasms, shaking and jerking of different body parts as well as balance issues.¹⁸ The problem was that there was no physical reason for her abnormal movements and they were generally considered stress related.¹⁹ Her claim was denied and Kraft appealed, claiming that the judge improperly concluded that "psychogenic" is the same thing as "malingering" and she was able to control her symptoms.²⁰ The court relied upon the opinion of a doctor in rejecting the claim who noted that Kraft showed evidence of embellishment. The plaintiff countered by arguing that her symptoms may have a psychological basis but her somatic complaints were not intentional or under her control.²¹ The court on appeal rejected these arguments and stated that there is no evidence that the trial judge rejected the idea that the symptoms could be psychological. To the contrary, the ALJ found that there was a psychological component to her symptoms that were aggravated by stress.²² The judge was also entitled to discount the plaintiff's testimony based upon the doctor's opinion that she was embellishing her symptoms. However, the appellate court reversed the denial of benefits because the ALJ failed to consider the doctor's testimony that the claimant had a serious impairment as the result of her pain, depression and physical limitations. It was noted that the trial judge could not rely on one portion of the physician's testimony while ignoring other critical parts.²³

The following is a discussion of relevant court cases by specific movement disorders.

Dystonia

The Lawyers Journal defines dystonia as "a movement disorder characterized by involuntarily muscle contractions that contort certain body parts into abnormal and painful postures." Dystonia has a connection to trauma and may follow an injury to the head

or another body part. It has also been seen following a visit to the dentist, post-surgery, injury to the eyes and after a whiplash injury. Proximate cause issues may also arise because the symptoms may not surface for months or years following the traumatic event.²⁴ Counsel should be aware that following a head injury, the dystonia symptoms may affect the opposite side of the brain injured by trauma.²⁵ Terminology applied to depict trauma-induced dystonia include: "injury-induced, peripherally-induced, post-traumatic dystonia, causalgia-dystonia syndrome, and reflex sympathetic dystrophy with dystonia."²⁶

From a defense point of view, counsel should be aware that the precise cause of dystonia is unknown. The best that can be said is that this condition was caused by an irregularity in or an injury to the basal ganglia or other brain areas that control movement.²⁷ The "unknown etiology" defense, however, cannot be used in isolation. It must be buttressed by the appropriate scientific articles, expert opinions and be considered along with the other evidence.²⁸ *Hedrick v. PPG Industries* provides an example.²⁹ This is an appeal from a worker's compensation determination in favor of an employee. The evidence demonstrates that the plaintiff was injured at work when she fell on her buttocks and low back. A couple of months later, she started to have tremors of her head, trunk, and extremities which were involuntary.³⁰ A neurologist determined that her movement disorder was not psychological but was an unspecified type with dystonia qualities. The employee went out on medical leave and stopped working.³¹ She was awarded temporary total disability and medical compensation and the employer appealed. The defendant argued that there is no scientific proof that the trauma caused the dystonia and the evidence merely raised a possibility that the condition was causally related to the fall.³² A second neurologist stated that the initial injury along with the surgery caused the dystonia or triggered a pre-existing dormant condition. The defense's expert testified that there is little data to support the principle that peripheral trauma can cause dystonia and many people have neck surgery and never develop this problem.³³ The court dismissed the arguments of the defense and stated that the text books on movement disorders and medical literature widely accept the idea that trauma can cause dystonia.³⁴

Dystonia verdicts or settlements in excess of \$1 million have been reached in a number of cases. Donnellan

v. First Student, Inc. resulted in a \$6 million award as the result of a school bus accident.³⁵ The plaintiff was a 31-year-old man who claimed that he sustained a number of permanent injuries including a cranial nerve injury and dystonia. The defense's expert testified that he was not able to properly evaluate the plaintiff because the claimant gave an insufficient effort during the exam and he thought the claimant had a somatization disorder or preoccupation with his health without a physical reason.³⁶ On appeal, the verdict was upheld.

A \$7 million verdict was rendered in *Mac Morris v. Rides-R-Us*.³⁷ This unusual fact pattern involves a "kid-die" ride that was not properly grounded and caused the plaintiff to be shocked when she brushed against it. The event caused her to suffer traumatic dystonia to the hand.³⁸ She claimed that her injury caused extensive problems with the ability to engage in everyday tasks including taking care of her young children. The expert for the defendant questioned the relationship between dystonia and electrical shock and argued that the plaintiff merely developed a hysterical conversion which would get better with therapy.³⁹ The jury awarded the patron \$7 million but the parties had entered in a high/low agreement so the award was reduced to the agreed-upon higher amount.⁴⁰

Kneile v. Montefiore Medical Group deals with a medical malpractice claim involving an ulnar nerve injury that developed after the insertion of contraceptive implants into the plaintiff's left arm.⁴¹ Kneile eventually developed atrophy in the extremity and was diagnosed with dystonia. The defense claimed that the injury occurred when the plaintiff underwent additional surgery to have the implants removed.⁴² A verdict was rendered in favor of the patient in the sum of \$2,250,000.⁴³

Not all lawsuits involving dystonia are so dramatic and defense verdicts have been rendered on a number of occasions. *Lawton v. Coker* involved a 68-year-old man who claimed that he developed cervical dystonia as the result of a rear-end car accident.⁴⁴ The defendant admitted that he caused the collision but denied that the dystonia was traumatically induced since it did not develop immediately after the incident.⁴⁵ The plaintiff demanded \$350,000 during trial and the defense countered with a \$10,000 offer. The jury returned with a defense verdict and a motion for a new trial was denied.⁴⁶

Tics

A Westlaw search uncovered only a small number of cases involving tics. For instance, *Fattal v. Leye* deals with a passenger in a cab who alleges that she sustained injuries in an accident.⁴⁷ A motion for summary judgment was filed to dismiss the claim for the failure to demonstrate a serious injury. The passenger's claim was premised upon the aggravation of a tic disorder related to pre-existing Tourette's syndrome.⁴⁸ The defense stated that an IME showed the plaintiff had a normal neurological exam with full range of motion. She also only missed ten days of work. Fattal's medical expert countered that the plaintiff informed him that her Tourette's had become worse since the incident and medical articles contain "multiple cases of tics that start or worsen after trauma."⁴⁹ The court granted the defendant's motion since no triable issue of fact was presented to show a serious injury. It stated the plaintiff "has not raised an issue of fact regarding her claimed exacerbation of Tourette's because there is no indication that the doctor she saw reviewed a single record, had any objective assessment of her pre-accident Tourette's and only concluded that any increase in tics may be related to the accident—which is speculative and conclusory."⁵⁰

Ex parte Rhea involves a worker's compensation claim arising out of two separate car accidents.⁵¹ In the first accident, the worker began to have spontaneous muscular contractions in the nature of facial tics but did not seek worker's compensation benefits.⁵² Six years later, he was involved in a second accident and applied for benefits on the basis of spontaneous muscle spasms resulting in the inability to work.⁵³ The lower court dismissed the claim finding the problem was related to the first accident and barred by the statute of limitations. This determination was reversed. The court found it significant that the worker had never applied for a loss of earning capacity as the result of the first accident.⁵⁴ While the first incident predisposed the claimant to the second injury, there was no loss of earning capacity claim until the second event. Therefore, the suit was not time barred.⁵⁵

In *Rogers v. Moody*, a 20-year-old man was in a car accident, struck his head on the windshield, and cut his face on the glass.⁵⁶ He also severed muscles in the face that left him with a facial tic that accentuated his facial scars. The jury's award of \$40,000 which was found not to be excessive.⁵⁷

The court is not always impressed with the development or an aggravation of a tic. That was the case in *Thomas v. Encompass Insurance* which involved a motor vehicle accident that exacerbated nervous tics related to Tourette's syndrome.⁵⁸ While the court noted the accident was a stressful event, it found that medication resolved the tics.⁵⁹ Likewise, in *Schramm v. The Long Island Railroad Company*, the plaintiff was hit in the back of the head by a large tree branch and sustained head and neck injuries.⁶⁰ He was diagnosed with a concussion, neck spasms, and a facial tic and missed five months of work. The jury returned with a verdict of \$250,000 but the court granted a new trial on the basis that the verdict was excessive.⁶¹

Tardive Dyskinesias

Dyskinesia is a neurological problem that has been the subject of a number of lawsuits. As for a definition, *Jenkins v. Bristol Myers Squibb* offers the following: "Tardive dyskinesia is a neurological disorder that causes irregular, involuntary muscular movements and can affect the limbs, upper extremities, trunk and facial muscles."⁶² Most cases involving this disorder are related to the taking of drugs that affect the chemicals in the brain and trauma does not seem to play a role in the disorder.⁶³ This opinion, however, is not unanimously accepted. At least one medical text notes that a "brain injury is a risk factor for tardive dyskinesia."⁶⁴ Nevertheless, the reported cases focus on the relationship between medication and tardive dyskinesia.⁶⁵

Parkinson's Disease

Scientific studies have shown a link between Parkinson's disease and head or brain trauma resulting for such things as a motor vehicle accidents, sports injuries and falls.⁶⁶ This risk increases with more severe or repetitive head injuries.⁶⁷ In fact, those over 55 who have been seen in the hospital for a traumatic brain injury, have a 44 percent chance of developing Parkinson's disease over the next six years.⁶⁸

There are many contexts involving Parkinson's disease and litigation such as the need for reasonable accommodations,⁶⁹ the connection between arsenic poisoning and the disease,⁷⁰ environmental factors and pesticides,⁷¹ medication causing Parkinson's disease,⁷² loss of employment because of Parkinson's,⁷³ exposure to welding fumes as the cause for developing the movement disorder,⁷⁴ manganese fume exposure,⁷⁵ a Parkinson's drug causing a gambling habit,⁷⁶ Parkinson's and

the American with Disabilities Act,⁷⁷ the link between carbon monoxide poisoning and Parkinson's,⁷⁸ and negligence in the failure to diagnosis and treat the disease.⁷⁹

The court cases linking trauma and Parkinson's disease over the past 50 to 75 years have gone through a metamorphosis. At one time, the medical community did not believe that a connection existed so lawsuits trying to establish such a link were unsuccessful. *Brown v. Los Angeles Transit Lines* is a 1955 case involving a patron who was injured in an accident while on a street car.⁸⁰ She alleged that her Parkinson's disease was caused by the collision but the defense countered that her condition was due to an emotional disturbance. A physician from the University of Chicago testified that Parkinson's does not result from trauma and another physician noted that in the more than 10,000 patients he has seen only one case which was related to an accident.⁸¹ Under the circumstances, the judge concluded that there was insufficient evidence to warrant the finding of a link between trauma and Parkinson's syndrome.⁸² A similar result was reached in the 1944 case of *Aluminum Co. v. Industrial Commission* in which an injured person was not able to return to work because the accident aggravated his pre-existing Parkinson's condition.⁸³ The medical testimony of the parties was remarkable similar. They agreed that the plaintiff had Parkinson's disease for some time before the accident and it was virtually impossible for the disease to be aggravated by trauma.⁸⁴ As a result, the lower court's grant of compensation was set aside.⁸⁵

A shift in position was evident several decades later in *Mancuso v. Mancuso*.⁸⁶ The plaintiff was involved in an accident and sustained what appeared to be superficial injuries. Two years later, she started to develop neurological issues and was diagnosed with Parkinson's disease. One year later, a neurologist confirmed the diagnosis and noted that the condition was aggravated by the accident.⁸⁷ The treating physician opined that while it is not possible to demonstrate that the impact of the accident was the actual cause of the disorder, there was no doubt that the incident aggravated her Parkinson's disease.⁸⁸ The lawsuit was filed two years and nine months after the incident and eight months subsequent to when the plaintiff was informed that the disease was related to the accident. The defense raised the two-year state of limitations as a bar to the claim.⁸⁹ The court allowed the lawsuit to proceed and noted that the connection between Parkinson's disease and

trauma is not common knowledge and it requires a highly specialized medical awareness to casually connect the two. Therefore, the statute does not start to run until the plaintiff was made aware of that link.⁹⁰

The cases involving Parkinson's and trauma have had mixed results. For instance, a \$500,000 verdict was rendered in *Kisha v. Deleon*⁹¹ as the result of a motor vehicle accident in which the plaintiff sustained a brain hematoma that was the trigger for the development of Parkinson's disease.⁹² A zero verdict, however, was returned in *Jones v. Cervante*.⁹³ The plaintiff claimed that his Parkinson's disease had become progressively worse since an accident. A chiropractor testified that the patient has suffered permanent injuries and would need \$20,000 in future medical care.⁹⁴ On cross examination, the plaintiff's expert admitted that Parkinson's disease becomes progressive worse with time.⁹⁵ The jury returned with a verdict within 30 minutes demonstrating that they did not believe the aggravation of the disease was related to the accident.⁹⁶

Chorea

Chorea is another hyperkinetic movement disorder that is characterized by involuntary, random, brief, jerking, non-rhythmic movements.⁹⁷ There are only very few cases that discuss trauma and chorea. Surprisingly, there is a case that mentions chorea as early as 1909. In *McCarthy v. Philadelphia Rapid Transit Co.*, a child was involved in a collision between a car and bus.⁹⁸ McCarthy sustained a laceration to his cheek and was nervous for a period of time. He was treated at a hospital and by his family doctor. The plaintiff made a good recovery within three months but about one and a half years after the event, he developed chorea.⁹⁹ No one attempted to link the movement disorder to the accident and the testimony demonstrated that chorea in children can be caused by injury, fright, and disease. The court would not let the jury consider the cause of the chorea because it was too remote.¹⁰⁰ It was noted that post-traumatic chorea can have an acute origin or it can have a considerable delay in development.¹⁰¹

A contrary result was reached in *Sloan v. Original Stage Line, Inc.*¹⁰² Sloan was a passenger on a bus that was in accident. The plaintiff claims that she struck her neck against the window and hit her head on the floor. The plaintiff developed a constant twitching and jerking of the muscles and was diagnosed with traumatic chorea.¹⁰³ This condition was described as a "disorder

of the motor nerves [that] causes a kind of jerking or contraction of the nerves."¹⁰⁴ A verdict was rendered in favor of the plaintiff and the defendant appealed claiming that the award was excessive. The court on appeal disagreed and upheld the finding.¹⁰⁵

In *Smith v. Reeves*, a passenger in a car accident claimed that she sustained a brain injury and a "chorea-like" movement disorder of her extremities.¹⁰⁶ The plaintiff did not seek medical care for ten months following the accident thereby making any link between the injury and the accident speculative. All diagnostic studies failed to show any abnormality and no testimony was offered to adequately explain how the chorea was related to the accident.¹⁰⁷ On appeal, the court noted that the trial judge should have granted the defense's motion for summary judgment on the basis that the plaintiff did not sustain a serious injury, a threshold requirement under New York law.¹⁰⁸

Tremors

The majority of tremor cases appear to arise in a Social Security context and are unrelated to trauma.¹⁰⁹ Nevertheless, tremors have found their way into the courtroom in a variety of other ways with varying success. *Moore v. Bi-State Development Agency* involves a minor who was struck by car while leaving a bus.¹¹⁰ He sustained multiple injuries including a traumatic brain injury, multiple fractures and voice tremors. He was left wheelchair bound and in need of total assistance with activities of daily living. The case was defended on liability and the jury returned with a \$7,750,000 which was reduced by 49 percent as the result of the plaintiff's contributory negligence.¹¹¹

Bartlett v. Snappy Car Rental, Inc. entails a six-figure award for injuries that included tremors but the verdict was reduced on appeal.¹¹² The plaintiff was involved in a car accident that required her to be hospitalized. She suffered from pre-existing tremors that were significantly aggravated to the extent that they became debilitating and prevented her from leading an active life.¹¹³ The defendant asserted that it was not liable but the evidence was insufficient to support the finding of liability. The jury awarded \$700,000 in damages but the verdict was found to be excessive and reduced to \$385,000.¹¹⁴

A defendant's motion for summary judgment on the basis that the plaintiff did not sustain a serious injury was denied in *Brown v. Shimkin*.¹¹⁵ The plaintiff was

an 80-year-old woman who was struck while crossing the street. She claimed injuries to her neck and back as well as tremors and paresthesia. The physician who performed an IME noted that the plaintiff had a normal neurological exam and her limitation in movement was age appropriate. The court was critical of his testimony because the doctor failed to consider an EMG which was relevant to the plaintiff's claim of tremors and paresthesia. In denying the motion, the court noted that the defendant failed to meet their burden of proof and the IME doctor did not discuss what objective tests he used in forming his conclusions.¹¹⁶

The courts on a number of occasions have been unimpressed with a claim involving a tremor. Rubenstein v. Senkier offers such an example.¹¹⁷ The plaintiff was involved in a motor vehicle accident and fractured his sternum and claimed soft tissue injuries to his neck and low back. He also asserted that these injuries exacerbated a pre-existing hand tremor that prevented him from continuing his job as a pediatrician. This allegation was supported by the testimony of a neurologist.¹¹⁸ The defense countered that the tremor was nothing more than a pre-existing condition related to a genetic medical syndrome and the accident merely caused a transient worsening of the tremors. Evidence

was also produced that the plaintiff had been in an earlier accident which made his tremors worse.¹¹⁹ A verdict was returned in favor of the defendant despite it being a clear liability case. The jury explained that it believed the hand tremors were a long-standing problem unrelated to the accident.¹²⁰

A similar result was achieved in *Mavrides v. Allstate*.¹²¹ This matter involved a rear end collision in which the plaintiff, a man in his 70s, claimed that he developed a tremor in his hand as the result of a brain injury sustained in the accident.¹²² The plaintiff's expert stated that the tremor was caused by the brain trauma and related to the accident. The defendant maintained that the tremor was not related to the incident and photographs of the plaintiff's car showed on a minor impact. A verdict for the defense was returned.¹²³

CONCLUSION

There is a clear connection between brain trauma and movement disorders so counsel should not overlook this link when handling a personal injury claim. However, as the cases demonstrate, an aggravation of a pre-existing movement disorder by itself does not guarantee the awarding of compensation. 🍷

Notes

- 1 Portions of this article have previously appeared in Hubbard and Hodge, "A Whole Lot of Shaken' Going On" Movement Disorders Caused by Brain Trauma," Cleveland State Law Review, 65 Clev. St. L. Rev. 287 (2017).
- 2 The connection between trauma and movement disorders was recognized in the 19th Century. C.H. Adler and J. Ahlskog, "Parkinson's Disease and Movement Disorders: Diagnosis and Treatment Guidelines for Practicing Physicians," Mayo Foundation for Medical Education and Research, https://link.springer.com/chapter/10.1007%2F978-1-59259-410-8_34#page-1 (last visited Sept. 2018).
- 3 Jon Stone, "Functional Tremor/ Spasms/ Walking Problems/ and Other Functional Movement Disorders," <http://www.neurosymbols.org/#/movement-disorders/4533053142> (last visited Sept. 2018).
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- 5 *Id.* The cases are *Pliva v. Mensing* and *Actavis v. Demahy*, 564 U.S. 604 (2010).
- 6 *Id.*
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- 30 *Id.* at 854-55.
- 31 *Id.*
- 32 *Id.* at 855.
- 33 *Id.* at 854-55.
- 34 *Id.* at 856.
- 35 891 N.E.2d 463 (Ill. App. Ct. 2008).
- 36 *Id.* at 472.
- 37 20 N.J. J.V.R.A. 4: C1, 1999 WL 35218779 (N.J. Super L.).
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- 40 *Id.*
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- 42 *Id.*
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- 54 *Id.* at 545.
- 55 *Id.*
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- 104 Id.
- 105 Id. The plaintiff was awarded \$10,000 which in 1932 would have been considered a lot of money.
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- 107 Id.
- 108 Id.
- 109 For example, see: Matejevich v. Colvin, 2015 WL 540126 (W.D. Pa. 2015); Lagares v. Colvin, 2015 WL 1291895 (N.D. Ga. 2015); Lowry v. Colvin, 2015 WL 1182735 (E.D. Mo. 2015).
- 110 XV JVRS 3-2, 2001 WL 34063088 (Mo. Cir.)
- 111 Id. at 1.
- 112 214 A.D.2d 596, 626 N.Y.S.2d 499 (S. Ct. App. N.Y. 1995).
- 113 Id. at 500.
- 114 Id.
- 115 2007 WL 2176295 (N.Y. Supp.) N.Y. Slip. Op. 32212 (U) (Trial Order).
- 116 Id. at 3.
- 117 20 N.Y. J.V.R.A. 7.6, 2003 WL 26455108 (N.Y. Supp.)(Verdict and Settlement Summary).
- 118 Id. at 1.
- 119 Id. at 2.
- 120 Id.
- 121 11 Nat. J. V. R.A. 4:29, 1995 WL 180009048 (Fla. Cir. Ct.) (Verdict and Settlement Summary).
- 122 Id. at 1.
- 123 Id.