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Retrospective Review

Descriptive Analysis of Federal and State Interventional Pain Malpractice Litigation in the United States: A Pilot Investigation

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Background: The aim of this study was to examine and appreciate characteristics of malpractice lawsuits brought against interventional pain specialists.

Objectives: To examine and appreciate characteristics of malpractice lawsuits brought against interventional pain specialists.

Study Design: Retrospective review.

Setting: Jury verdicts and settlement reports of state and federal malpractice cases involving interventional pain practitioners from January 1, 1988, to January 1, 2018 were gathered from the Westlaw online legal database.

Methods: Jury verdicts and settlement reports of state and federal malpractice cases involving interventional pain practitioners from January 1, 1988, to January 1, 2018 were gathered from the Westlaw online legal database. Data collected for each case included year, state, patient age, patient gender, defendant specialty, legal outcome, award amount, alleged cause of malpractice, and factors in plaintiff's decision to file. After elimination of duplicates and applying inclusion/exclusion criteria to our initial search yielding over 1,500 cases, a total of 82 cases were included in this study.

Results: A total of 57.3% of cases resulted in a jury verdict in favor of the defendant, whereas 41.5% favored the plaintiff. When comparing cases that were performed in the operating room to cases performed outside the operating room, we found the jury verdicts to favor the plaintiff 83.3% of the time for operating room procedures ($P = 0.003$). In other words, interventional pain practitioners were more likely to be found at fault for complications from procedures performed in the operating room. To eliminate confounders, a logistical regression was performed and confirmed operating room procedures were an independent predictor of a verdict awarded to the plaintiff ($P = 0.008$). The median amount awarded to the plaintiff for all cases was $333,000, and the single highest award amount was $36,636,288. The median payout for operating room procedures was $450,000 ($P = 0.010$), which was significantly different from the median payout for nonoperating room procedures. Procedure categorization demonstrated a statistically significant difference in jury verdicts ($P = 0.01411$) and procedural error was the leading reason for pursuing litigation, followed by lack of informed consent and unnecessary procedure performed.

Limitations: There is more than one database that captures medicolegal claims brought against practitioners. Westlaw, which has been previously utilized by other studies, is only one of them and the extent to which overlap exists in unclear. For each, data input are not necessarily consistent and data capture are not complete. As a result, there could exist a skew toward more severe complications and the details of individual cases likely vary. During data extraction, we found that all details of the procedure were not always included. For example, not all cases specified the type of injectate utilized for epidural injection (i.e., local anesthetic, steroid, mixture, and others) or route of injection (i.e., transforaminal vs. interlaminar). Moreover, as previously mentioned, cases that are settled out of

court or finalized prior to trial are not necessarily reported by the Westlaw database, and therefore were not always included in our data search.

Conclusions: Overall, interventional pain medicine physicians were favored by jury verdicts for malpractice claims. However, when filtering by procedure or setting, jury verdicts favored the plaintiff in some cases.

Key words: Interventional pain, medical, malpractice, anesthesiology

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In the United States, medical malpractice litigation is a serious issue and is associated with rising costs in the medical community. Mello et al (1) estimated the annual cost to be upward of $55 billion. Despite efforts aimed at controlling malpractice costs, the perceived threat of malpractice lawsuits has led to the practice of defensive medicine, which may include practices not in the best interest of the patient (2-4). Risk of facing a malpractice lawsuit varies significantly across specialty. A total of 46.7% of claims brought against anesthesiologists resulted in litigation and on average took more than 2 years to come to resolution. In 2008, the median payment by anesthesiologists for verdicts that were in favor of the plaintiff was just under $100,000, with the overwhelming majority of claims settled pretrial (5-6). However, very little information exists regarding specifics of malpractice lawsuits brought against anesthesiology-trained interventional pain specialists.

Interventional pain medicine physicians have an invaluable role in the multidisciplinary approach for treating chronic pain—from optimizing regimens of oral medications to applying a combination of skill, knowledge, and discipline to deliver targeted therapies via procedural intervention. Procedures performed can range from office-based trigger point injections to much more complex surgeries requiring an operating room setting, such as placement of spinal cord stimulators (7).

The aim of this study was to examine and appreciate characteristics of malpractice lawsuits brought against interventional pain specialists.

Methods

Publicly available U.S. federal and state jury verdict and settlement reports of cases involving anesthesiologists from January 1, 1988, to January 1, 2018, were searched using the Westlaw online legal search engine, a system used to identify court documents from all U.S. states that are accumulated by attorney editors and commercial vendors (Thomson Reuters, New York, NY). The search parameters used for this study were "medical malpractice" and "anesthesiologist." This platform is frequently used by various specialties in the medical community for the purpose of exploring court trials related to their specific field. It excludes lawsuits filed locally, terminated before reaching trial, or settled out of court. It is not mandatory to report a case, and available cases in the Westlaw database represent only a portion of all medical malpractice claims. The court documents that are available include detailed information, such as settlements, verdicts, award amounts, case law analyses, and court orders.

A total of 1,500 cases resulted from our search, after which cases unrelated to interventional pain procedures were excluded. This left a total of 82 cases. Data collected for each case included year, state, patient age, patient gender, defendant specialty, legal outcome, award amount, and alleged cause of malpractice. Factors involved in the plaintiff's decision to file suit, such as procedural error, lack of informed consent, an unnecessary procedure performed, complications requiring bedside or surgical intervention, failure to refer to another specialist, failure to diagnose, failure to treat, and death, were also recorded (Fig. 1). To reduce bias in data extraction, 2 authors independently reviewed individual case files. Discrepancies in data from individual cases were resolved via consensus decision between authors.

Statistical analysis was performed using R statistical packages (R version 3.5.2; R Foundation for Statistical Computing, Vienna, Austria). In univariate analysis, the Mann-Whitney U test and the χ^2 tests were used to compare between groups of numerical variables and categorical variables, respectively. Statistical significance was defined as $P < 0.05$. Multivariable regression was performed controlling for infection, spine-related versus peripheral, operative room versus nonoperative room, death, motor nerve injury, sensory nerve injury, respiratory event, gender, cardiac event, and cerebral injury to identify independent predictors of plaintiff-favored verdict.

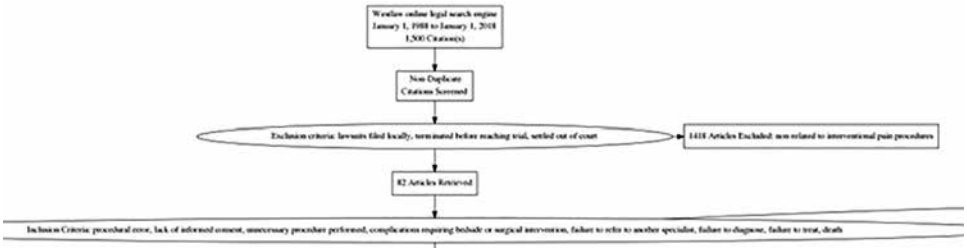

Fig. 1. *PRISMA study selection guidelines.*

Table 1. *Litigation by State.*

State	Total	Neuraxial	Peripheral	Nonoperating Room	Operating Room
Alabama	1	1	0	1	0
Alaska	2	2	0	1	1
California	14	12	1	11	3
Florida	10	6	4	9	1
Georgia	1	1	0	0	1
Illinois	6	1	3	4	0
Indiana	4	4	0	4	0
Iowa	5	4	1	5	0
Kentucky	1	1	0	1	0
Louisiana	3	2	0	1	1
Massachusetts	3	2	1	2	1
Michigan	1	1	0	1	0
Minnesota	2	1	1	2	0
Missouri	1	1	0	1	0
Nevada	3	2	1	2	1
New Jersey	7	0	1	1	0
New Hampshire	1	4	3	6	1
New York	5	4	1	5	0
Ohio	1	1	0	1	0
Oklahoma	2	1	1	2	0
Oregon	3	3	0	2	1
Pennsylvania	1	1	0	1	0
Texas	4	4	0	3	1
Washington	1	0	1	1	0
Total	50	36	20	67	12

Results

Overview

After filtering our initial search, 82 total cases from 24 different states were included for analysis (Table 1). We also broadly categorized our procedures by anatomy and location to compare spine-related to peripheral procedures (Table 2), and procedures performed in the fluoroscopy suite to those performed in the operating room (Table 3). Fifty-nine cases involved spine-related

Table 2. *Litigation Demographics of Westlaw Litigation cases**

Variables		Total		Central		Peripheral		*P*	Test
		n = 82		n = 59		n = 19			
Demographics									
	Age, years	44	(35.8-60.0)	50	(40.25- 61.5)	35	(30-40)	0.014	Mann–Whitney U test
	Gender, Female	48	(58.5%)	35	(59.3%)	11	(57.9%)	0.850	Pearson's Chi-squared Test
Year								0.445	Fisher's Exact Test
	1988-1998	7	(8.5%)	4	(6.8%)	3	(15.8%)		
	1999-2008	38	(46.3%)	26	(44.1%)	6	(31.6%)		
	2009-2018	34	(41.5%)	28	(47.5%)	9	(47.4%)		
	Unknown	3	(3.7%)	1	(1.7%)	1	(5.3%)		
Trial Type								0.043	Fisher's Exact Test
	Jury	66	(80.5%)	47	(79.7%)	15	(78.9%)		
	Settlement	13	(15.9%)	12	(20.3%)	1	(5.3%)		
	Arbitration	1	(1.2%)	0	(0.0%)	1	(5.3%)		
	Bench	1	(1.2%)	0	(0.0%)	1	(5.3%)		
	Unknown	1	(1.2%)	0	(0.0%)	1	(5.3%)		
Jury Verdict								0.789	Fisher's Exact Test
	Plaintiff	34	(41.5%)	26	(44.1%)	7	(36.8%)		
	Defendant	47	(57.3%)	33	(55.9%)	11	(57.9%)		
	Unknown	1	(1.2%)	0	(0.0%)	1	(5.3%)		
Alleged Cause of Malpractice									
	Sensory Nerve Injury	40	(48.8%)	32	(54.2%)	8	(42.1%)		Fisher's Exact Test
	Motor Nerve Injury	36	(43.9%)	30	(50.8%)	6	(31.6%)		Fisher's Exact Test
	Respiratory Event	23	(28.0%)	13	(22.0%)	8	(42.1%)		Fisher's Exact Test
	Cardiac Event	7	(8.5%)	4	(6.8%)	2	(10.5%)		Fisher's Exact Test
	Cerebral Injury	8	(9.8%)	7	(11.9%)	0	(0.0%)		Fisher's Exact Test
	Fall	1	(1.2%)	0	(0.0%)	1	(5.3%)		Fisher's Exact Test
	Infection	15	(18.3%)	15	(25.4%)	0	(0.0%)		Fisher's Exact Test
	Hematoma	6	(7.3%)	5	(8.5%)	1	(5.3%)		Fisher's Exact Test
	GI event	4	(4.9%)	2	(3.4%)	1	(5.3%)		Fisher's Exact Test
	Other**	4	(4.9%)	4	(6.8%)	0	(0.0%)		Fisher's Exact Test
Reason for Litigation									
	Procedural Error	49	(59.8%)	35	(59.3%)	13	(68.4%)		Fisher's Exact Test
	Lack of Consent	34	(41.5%)	24	(40.7%)	10	(52.6%)		Fisher's Exact Test
	Unnecessary Procedure	20	(24.4%)	13	(22.0%)	7	(36.8%)		Fisher's Exact Test
	Required Bedside Procedure	27	(32.9%)	19	(32.2%)	8	(42.1%)		Fisher's Exact Test
	Required Surgical Procedure	22	(26.8%)	16	(27.1%)	6	(31.6%)		Fisher's Exact Test
	Failure to Refer	20	(24.4%)	15	(25.4%)	3	(15.8%)		Fisher's Exact Test

Table 2 (cont.). *Litigation Demographics of Westlaw Litigation cases**

Variables		Total		Central		Peripheral		*P*	Test
		n = 82		n = 59		n = 19			
	Failure or Delay to Diagnose	38	(46.3%)	29	(49.2%)	7	(36.8%)		Fisher's Exact Test
	Failure to Disclose	16	(19.5%)	12	(20.3%)	3	(15.8%)		Fisher's Exact Test
	Death	12	(14.6%)	8	(13.6%)	0	(0.0%)		Fisher's Exact Test
Payout for Sensory Nerve Injury									
	Mixed	0	(0-11,250)	0	(0- 7,500)	0	(0-0 25,000)		Mann–Whitney U test
	Isolated Sensory Nerve (n=6)	0	(0-0)	0	(0-0)	25,000	(12,500-37,500)		Mann–Whitney U test
Median Payout		0	(0-127,500)	0	(0-180,510)	0	(0-108,125)		Mann–Whitney U test
	[Range]		[0-36,636,288]		[0-36,636,288]		[0-1,327,333]		
	Plaintiff, Range		[15,000-366,362,880]		[15,000-36,636,288]		[50,000-1,327,333]		
	Plaintiff	351,962	(181,020-1,069,611)	525,000	(266,009.5-2,722,113)	235,558	(154,492-771,412)		Mann–Whitney U test
	Defendant, Range		[0-20,000]		[0-0]		[0-20,000]		
	Defendant	0	(0-0)	0	(0-0)	0	(0-0)		Mann–Whitney U test

Abbreviations: *number (%), median (IQR) , [range]

procedures, and 12 cases were performed in the operating room. We also grouped similar procedures to see if there was a difference in jury verdicts and award amounts based on procedure type (Table 4). Procedure categories included epidural injections, facet joint injections, trigger point injections, spinal cord stimulator placements, intrathecal pump implantations, and all others.

Geographics, Demographics, and Legal Outcomes

Of the 24 states represented in our study, the greatest number of cases came from California (14), Florida (10), New Jersey (7), Illinois (6), and New York (5). The median age of patients (or plaintiffs) was 44 years (range, 35–60 years), and 58.5% of patients were women. With regard to legal outcome, 66 cases were determined by jury verdict, whereas 13 ended with settlements. A total of 57.3% of cases resulted in a jury verdict in favor of the defendant, whereas 41.5% favored the plaintiff.

Alleged Cause of Malpractice and Factors in Decision to File

Following broad categorization of alleged causes of malpractice, the 4 most common causes included sensory nerve injury, motor nerve injury, respiratory events, and infection. Sensory nerve injury was claimed in 48.8% of cases, motor nerve injury in 43.9% of cases, respiratory events in 28.0% of cases, and infection in 18.3% of cases. Procedural error was the leading reason for pursuing litigation and was cited in 59.8% of cases. The next most common factor in decision to file was failure or delay in diagnosing a complication.

Awards

The median amount awarded to the plaintiff for all cases was $333,000. For spine-related procedures, the median amount awarded to the patient to $525,000 compared with $235,558 being awarded for peripheral procedures. For cases performed in the operating room, the median awarded amount to the patient was also higher than those performed in nonoperating room settings at $750,000 and $314,038, respectively. The single highest award amount was $36,636,288 resulting from an accidental direct injection of epidural steroid into the cervical spinal cord leading to paralysis, spasticity, and gait disturbance.

Procedures

Epidural injections accounted for 36 cases, and defendants were favored by jury verdicts in 66% of cases.

Table 3. Litigation Demographics of Westlaw Litigation cases*

Variables		Total		non-OR		OR		*P*	Test
		n = 82		n = 66		n = 12			
Demographics									
	Age, years	44	(35.8-60.0)	44	(35.75- 60.5)	50	(40.5 -57)	0.942	Mann–Whitney U test
	Gender, Female	48	(58.5%)	38	(57.6%)	8	(66.7%)	0.753	Fisher's Exact Test
Year									
	1988-1998	7	(8.5%)	7	(10.6%)	0	(0.0%)	0.722	Fisher's Exact Test
	1999-2008	38	(46.3%)	26	(39.4%)	6	(50.0%)		
	2009-2018	34	(41.5%)	31	(47.0%)	6	(50.0%)		
	Unknown	3	(3.7%)	2	(3.0%)	0	(0.0%)		
Central vs Peripheral								0.032	Fisher's Exact Test
	Central	59	(75.6%)	47	(71.2%)	12	(100.0%)		
	Peripheral	19	(24.4%)	19	(28.8%)	0	(0.0%)		
Trial Type									
	Jury	66	(80.5%)	55	(83.3%)	7	(58.3%)	0.095	Fisher's Exact Test
	Settlement	13	(15.9%)	8	(12.1%)	5	(41.7%)		
	Arbitration	1	(1.2%)	1	(1.5%)	0	(0.0%)		
	Bench	1	(1.2%)	1	(1.5%)	0	(0.0%)		
	Unknown	1	(1.2%)						
Jury Verdict								0.003	Fisher's Exact Test
	Plaintiff	34	(41.5%)	23	(34.8%)	10	(83.3%)		
	Defendant	47	(57.3%)	42	(63.6%)	2	(16.7%)		
	Unknown	1	(1.2%)	1	(1.5%)	0	(0.0%)		
Alleged Cause of Malpractice									
	Sensory Nerve Injury	40	(48.8%)	34	(51.5%)	6	(50.0%)	1	Fisher's Exact Test
	Motor Nerve Injury	36	(43.9%)	32	(48.5%)	4	(33.3%)	0.3671	Fisher's Exact Test
	Respiratory Event	23	(28.0%)	15	(22.7%)	6	(50.0%)	0.0749	Fisher's Exact Test
	Cardiac Event	7	(8.5%)	5	(7.6%)	1	(8.3%)	1	Fisher's Exact Test
	Cerebral Injury	8	(9.8%)	5	(7.6%)	2	(16.7%)	0.2925	Fisher's Exact Test
	Fall	1	(1.2%)	1	(1.5%)	0	(0.0%)	1	Fisher's Exact Test
	Infection	15	(18.3%)	11	(16.7%)	4	(33.3%)	0.2304	Fisher's Exact Test
	Hematoma	6	(7.3%)	6	(9.1%)	0	(0.0%)	0.5825	Fisher's Exact Test
	GI event	4	(4.9%)	1	(1.5%)	2	(16.7%)	0.06015	Fisher's Exact Test
	Other**	4	(4.9%)	3	(4.5%)	1	(8.3%)	0.4947	Fisher's Exact Test
Reason for Litigation									
	Procedural Error	49	(59.8%)	43	(65.2%)	5	(41.7%)	0.196	Fisher's Exact Test
	Lack of Consent	34	(41.5%)	31	(47.0%)	3	(25.0%)	0.212	Fisher's Exact Test
	Unnecessary Procedure	20	(24.4%)	15	(22.7%)	5	(41.7%)	0.278	Fisher's Exact Test
	Required Bedside Procedure	27	(32.9%)	21	(31.8%)	6	(50.0%)	0.323	Fisher's Exact Test

Table 3 (cont.). Litigation Demographics of Westlaw Litigation cases*

Variables		Total		non-OR		OR		*P*	Test
		n = 82		n = 66		n = 12			
	Required Surgical Procedure	22	(26.8%)	17	(25.8%)	5	(41.7%)	0.303	Fisher's Exact Test
	Failure to Refer	20	(24.4%)	15	(22.7%)	3	(25.0%)	1.000	Fisher's Exact Test
	Failure or Delay to Diagnose	38	(46.3%)	30	(45.5%)	6	(50.0%)	1.000	Fisher's Exact Test
	Failure to Disclose	16	(19.5%)	12	(18.2%)	3	(25.0%)	0.691	Fisher's Exact Test
	Death	12	(14.6%)	5	(7.6%)	3	(25.0%)	0.101	Fisher's Exact Test
Payout for Sensory Nerve Injury									
	Mixed	0	(0-11,250)	0	(0 -3,750)	1,636,473	(818,237-2,454,710)		Mann–Whitney U test
	Isolated Sensory Nerve (n=6)	0	(0-0)	0	(0-12,500)	0	(0-0)		Mann–Whitney U test
Median Payout		0	(0-127,500)	0	(0-18,750)	450,000	(90,000-2,011,473)		Mann–Whitney U test
	[Range]		[0-36,636,288]		[0 36,636,288]		[0-16,331,024]		
	Plaintiff, Range		[15,000-366,362,880]		[15,000-36,636,288]		[180,000-16,331,024]		
	Plaintiff	333,000	(180,510-1,009,806)	314,038	(208,244-1,009,806)	750,000	(450,000-3,272,946)		Mann–Whitney U test
	Defendant, Range		[0-20,000]		[0-20,000]		[0-0]		
	Defendant	0	(0-0)	0	(0-0)	0	(0-0)		Mann–Whitney U test

*number (%), median (IQR) , [range]

The median payout for verdicts in favor of the plaintiff came out to just under half a million dollars. For cases involving intrathecal pump implantation, plaintiffs were favored 100% of the time and the median award amount was $600,000. Complications included 2 pierced spinal cords during placement leading to paraplegia, 3 overdoses during pump refill, and 2 cases of pump infections leading to meningitis, osteomyelitis, and seizures.

Statistical Significance

When comparing spine-related to peripheral procedures, we found elderly patients were more likely to undergo spine-related procedures ($P = 0.014$). Gender, year filed, and jury's verdict showed no statistical significance ($P = 0.789$). Spine procedures that were not decided by jury were more likely to result in settlements, whereas peripheral procedures not decided by jury were equally decided by settlement, arbitration, and trial ($P = 0.043$). The alleged cause of malpractice showed no significant difference except for when infection was documented, which was cited in 25.4% of spine procedures ($P = 0.016$). Reason for litigation and median payment also showed no significant difference between the 2 groups.

When comparing cases that were performed in the operating room to cases performed outside the operating room, we found the jury verdicts to favor the plaintiff 83.3% of the time for operating room procedures ($P = 0.003$). In other words, interventional pain practitioners were more likely to be found at fault for complications from procedures performed in the operating room. To eliminate confounders, a logistical regression was performed and confirmed operating room procedures were an independent predictor of a verdict awarded to the plaintiff ($P = 0.008$). Factors in defendants awarded, which included infection ($P = 0.154$), peripheral location ($P = 0.924$), death ($P = 0.221$),

Table 4. *Awarded Party by Procedure.*

Procedure	Total Awards	Defendant Awards	Defendant Awards as % of Total	Plaintiff Awards	Plaintiff Awards as % of Total
Epidural injection	36	24	66.67%	12	33.33%
Facet joint injection	8	4	50.00%	4	50.00%
Intrathecal pump	7	0	0.00%	7	100.00%
Other	23	15	65.22%	7	30.43%
Spinal cord stimulator	5	2	40.00%	3	60.00%
Trigger point injection	3	2	66.67%	1	33.33%

motor nerve injury (P = 0.157), respiratory event (P = 0.081), female gender (P = 0.117), cardiac event (P = 0.584), cerebral event (P = 0.297), and sensory nerve injury (P = 0.885) were not significant, whereas operating room location (adjusted odds ratio, 0.059; 95% confidence interval, 0.005–0.380; P = 0.008) was protective of a defendant verdict awarded.

All cases performed in the operating room were spine-related procedures, whereas cases performed outside the operating room included a mix of spine-related and peripheral procedures (P = 0.032). Finally, the median payout for operating room procedures was $450,000 ($P$ = 0.010), which was significantly different from the median payout for nonoperating room procedures.

Procedure categorization demonstrated a statistically significant difference in jury verdicts (P = 0.01411). Epidural injections accounted for 44% of cases and also included the single highest award amount.

Discussion

Legally, for a physician to be found at fault, negligence must be demonstrated. This requires ascertainment of duty, breach of duty, harm, and causation. The jury must determine if the physician practiced outside the standard of care, and if so, caused significant harm (11).

In our study, 57.3% of cases resulted in a jury verdict in favor of the defendant, whereas 41.5% favored the plaintiff. However, we found that when comparing cases performed in the operating room to cases performed outside the operating room, jury verdicts overwhelmingly favored the plaintiff. In other words, interventional pain practitioners were more likely to be found at fault for complications from procedures performed in the operating room. To eliminate confounders, a logistical regression was performed and confirmed operating room procedures were an independent predictor of a verdict awarded to the plaintiff (P = 0.008). Evaluating factors predictive of a defendant verdict awarded, including infection, peripheral location, death, motor nerve injury, respiratory event, female gender, cardiac event, cerebral event, and sensory nerve injury, were not as significant as intervention in the operating room setting. It is possible the increased complexity of the cases being performed in the operating room (i.e., spinal cord stimulator and intrathecal pumps) could explain this finding. However, it is also possible that unknown variables may exist acting as confounders considering case descriptions from the Westlaw database are not necessarily written by medical personnel. Further investigation is recommended to fully appreciate the details pertaining to these cases. If this trend continues, practitioners may elect not to perform these procedures in the future, which have shown great promise in relieving intractable pain.

With regard to individual procedures, our results indicated type of procedure performed showed statistical significance in predicting legal outcome. Verdicts were found in favor of the plaintiff in 33% of cases involving epidural and trigger point injections, 50% of cases for facet joint injections, 60% of cases of spinal cord stimulator placement, and as mentioned previously, 100% of cases involving intrathecal pump implantation. In a retrospective review published in Anesthesia Analgesia, Abrecht et al (9) analyzed award amounts of outpatient interventional pain procedures using the Controlled Risk Insurance Company Comparative (CRICO) Benchmarking System database. CRICO is a medical malpractice claims database (note that Westlaw is a legal database). They found procedural error to be the most commonly cited complication resulting in claims brought against practitioner and our study had similar results. Procedural error was cited in 60% of cases. The combined results from these 2 studies utilizing 2 different databases emphasizes the importance that interventional pain practitioners focus on the specifics of technique when performing each unique procedure. As such, attention to skills training, following best practice

recommendations, and exhaustive consent discussion may prove useful (9).

Finally, demonstrating the high risk, high reward nature of the field, this study shows the median payment by interventional pain practitioners for verdicts in favor of the plaintiff to be approximately $350,000 as compared with just under $100,000 for general anesthesiologists (5-6).

Limitations

There is more than one database that captures medicolegal claims brought against practitioners. Westlaw, which has been previously utilized by other studies (12-16), is only one of them and the extent to which overlap exists in unclear. For each, data input are not necessarily consistent and data capture are not complete. As a result, there could exist a skew toward more severe complications and the details of individual cases likely vary. During data extraction, we found that all details of the procedure were not always included. For example, not all cases specified the type of injectate utilized for epidural injection (i.e., local anesthetic, steroid, mixture, and others) or route of injection (i.e., transforaminal vs. interlaminar). Moreover, as previously mentioned, for Westlaw out-of-court settlements or those finalized prior to reaching trial are not necessarily included and reporting is not mandated.

Conclusions

Given the recent efforts to combat the opioid epidemic by lawmakers, a push toward multimodal pain management, including elective interventional pain procedures, will become increasingly important. Therefore it is important for us to shed light on the history and outcomes of prior medical malpractice claims brought against practitioners. By looking at the past, we can prepare for the future. Interventional pain physicians must become well versed in the legal aspect of the specialty to ensure they are working within their scope of practice.

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