

Patient Suffers Neuromuscular Deficits Following Spinal Injections; Poor Coordination of Care Results in Paralysis and Malpractice Lawsuit

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Introduction

In previous editions of *Risk Management Review*, the importance of adequate communication and documentation when treating all patients has been conveyed. This is most certainly true when treating a patient who has suffered an iatrogenic injury and timing is critical in attempting to reverse the damage. Those were the circumstances in this interesting case from the Northeast.

Facts

The patient was a 75-year-old male with a history of cardiovascular disease, Type 2 diabetes, and chronic obstructive pulmonary disease (COPD), including a 60-year, one pack/day smoking habit. He had had an MRI in October of Year 1 that indicated “severe

congenital and acquired spinal stenosis at L2-L3. . .” His medical history included back surgery in January of Year 1; however, that surgery did not include treatment of L2-L3.

The patient first saw Dr. K, a MedPro-insured, board-certified pain management specialist, in January of Year 2 for continuing back pain. Later that month, Dr. K performed a caudal epidural steroid injection. The procedure was unremarkable, but did not provide any pain relief. Because of this, in February Dr. K performed a bilateral sacroiliac injection. The sequelae of that injection is the focal point of this case.

Dr. K used 2 mL of 2% lidocaine locally, followed by 1 mL of iohexol injection to determine proper distribution, and then

an injection of 40 mg of methylprednisolone acetate and 2 mL of .5% bupivacaine hydrochloride. The procedure was unremarkable.

Before he left the ambulatory surgery center (ASC) at approximately 3 p.m., Dr. K wrote the following note: “I have evaluated the patient for postanesthesia recovery and the patient is ready for discharge. . .” However, in his deposition, he testified, “I did not discharge the patient at that time, no.” This contradiction was explained as the physician writing the note so it would appear in the chart, but the patient then not recovering as he had expected.

In the hours after Dr. K’s departure, the patient’s legs remained numb and he was unable to stand. At 6:30 p.m., Dr. K was contacted and advised of the patient’s condition. Dr. K stated that he could not return to the facility and indicated that the nurse should do lower limb neurological examinations and call him back.

At 7:15 p.m., it was reported to Dr. K that the patient could still not weight-bear. Dr. K indicated that it could take 5 to 6 hours for full function to return. At 9 p.m., Dr. K was advised of no improvement, and he responded “as expected as anesthesia wears off. . .”

At 10 p.m., Dr. K was advised that the patient’s condition had not improved noticeably, but that the patient wanted to go home. Dr. K approved discharge, advising to have the patient “move slowly and carefully.” Dr. K maintains that he was not advised that the patient could not walk (he was taken to his car in a wheelchair and lifted into the car). Both Dr. K’s and the ASC’s documentation did not indicate this point.

Early the following morning, the patient’s wife called Dr. K to inform him that her husband was still unable to walk. Dr. K requested an ambulance to transport him to hospital 1. He arrived at the emergency department (ED) in stable but unchanged condition.

Upon arrival in the ED, a registered nurse (RN) assessed the patient and noted numbness, with some pain and tingling in both legs. His pain progressed from 5/10 to 8/10 within the first hour in the ED. He also now complained of an inability to urinate.

A STAT MRI without contrast was ordered; however, the patient was unable to lie supine because of his pain. A nearby hospital had the capability to perform the MRI under conscious sedation, but no immediate efforts to arrange

a transfer were made. The patient remained at hospital 1, with his care now being transferred to a hospitalist, Dr. S. The patient was continued on potent analgesics and intravenous (IV) dexamethasone was administered. The neurologist on call was requested to see the patient, but did not do so until the following morning.

The neurologist examined the patient on postprocedure Day 2 and noted: “extremity strength 1-2/5, L1 sensory level. Deep tendon reflexes are difficult to elicit and plantars are mute.” The neurologist did not order a neurosurgical consult.

A thoracic and lumbar MRI was accomplished that afternoon at approximately 3 p.m. on postprocedure Day 2, revealing (among other things) “large central extruded disc fragment at L2-L3, causing marked compression of the thecal sac.” No documentation indicates that the reading radiologist made any attempt to communicate her findings beyond the normal dictation.

At approximately 7 p.m., Dr. S’s physician assistant (PA) read the MRI report, and at 9 p.m. she contacted neurosurgery and spoke to the neurosurgery PA on call. The neurosurgery PA explained that the surgeon in the

group who had previously operated on the patient’s back was not on call, but he would contact that surgeon if the case was an emergency. The neurosurgery PA testified that he was told that this case was not an emergency; however, Dr. S’s PA disputed it. In any case, the neurosurgeon did not see the patient until the following morning.

The neurosurgeon’s assessment of the patient on the morning of postprocedure Day 3 indicated: “Sensation is minimal lower extremities. No bladder function. Severe lower extremity weakness 1/5 throughout all lower extremities, bilateral.” Surgery (which the surgeon characterized as emergent) commenced at approximately 9 a.m., with a diagnosis of “very large herniated disc at L2-L3, markedly degenerated and fragmented. It was removed piecemeal.”

After a long period of rehabilitation, the patient was transferred home, with continued paresthesia and paralysis in the lower extremities and neurogenic bladder. He also had continuing problems with urinary tract infections (UTIs) and decubitus ulcers.

A subsequent medical malpractice lawsuit was brought against Dr. K, Dr. S, the neurologist,

the ED physician, and hospital 1. A global settlement was accomplished for all defendants by a payment in the high range. Dr. K's contribution to the settlement was in the midrange, and his defense costs were in the high range.

Discussion

From a clinical perspective, this case is not particularly difficult to understand; the patient developed incomplete cauda equina syndrome that may have been responsive to prompt surgical intervention. The reasons this intervention did not occur are where it gets complicated.

The failures can largely be attributed to inadequate communication combined with instances of poor clinical management. Poor documentation led to difficulty in adequately analyzing the case from a risk management/legal perspective, but it does not appear to have directly contributed to the suboptimal outcome.

First, Dr. K put himself in a difficult position when he documented that when he evaluated the patient postanesthesia, he was ready for discharge. We know, of course, that the patient wasn't ready for discharge, which impugns the doctor's credibility and makes it

difficult for him to defend himself by means of explanation for any other actions he may have taken or not taken. It is an obvious documentation no-no.

Second, the communication between the ASC RN who was caring for the patient postprocedure and Dr. K was critical. However, because of the RN's inadequate documentation and Dr. K's lack of documentation, that communication is largely unknown. Communication did occur in approximately 2-hour periods, but it was disputed how clearly the RN communicated to Dr. K that the patient could not weight-bear.

Third, the RN also testified that the doctor told her he "could not come in" to evaluate the patient in person. However, the doctor's reason for not doing so or whether he actually said this was never established. It is fair to speculate that if Dr. K had observed the patient's condition, he may have ordered an immediate transfer by ambulance to the hospital, eliminating the movement of the patient into a wheelchair, into the car, and into his home. The patient also would have been seen in the inpatient setting about 12 hours sooner.

Fourth, the radiologist who read the MRI dictated an accurate report into the PACS system, but did not personally communicate her findings (which were serious and potentially time-sensitive) to Dr. S (the hospitalist who had assumed management responsibility for the patient) or anyone else.

Fifth, it is also disputed whether the patient and his family were insistent that they wanted to leave against medical advice (AMA) at 10 p.m., or whether they were told that they had to leave as the ASC was closing. If the family decided to leave, the ASC's "AMA form" was not used. The family was given Dr. K's contact number but did not call him until early the following morning.

The clinical management of the patient, unfortunately, included many missteps. The ED physician knew the patient was in pain and nonambulatory, but obviously did not know why. Realizing that the source of the problem was likely neurological and that it could be time-critical, she ordered a STAT thoracic and pelvic MRI. However, when the patient could not tolerate lying supine, the MRI was not accomplished.

At that point, an MRI using conscious sedation was indicated (again, STAT), but hospital 1

did not have that capability at that time. While a nearby tertiary care facility did have this immediate capability, the ED physician did not arrange it; the patient continued to languish in hospital 1's ED.

Then the neurologist saw the patient on the morning of postprocedure Day 2, and the physical findings suggested an evolving, potentially time-critical condition. But the neurologist did not attempt to move up the MRI or order a neurosurgical consult. However, when the MRI was done (the following afternoon), the patient's condition became clear.

The MRI report was not read until approximately 7 p.m. when Dr. S's PA read it. She then contacted the neurosurgery practice on call at 9 p.m. (there was no explanation for the 2-hour delay). At that time, she spoke to the neurosurgery practice's PA.

It is disputed whether Dr. S's PA communicated whether it was an emergency; in any case, no neurosurgeon saw the patient until the following morning (postprocedure Day 3). When he examined the patient, the operating surgeon characterized the condition as an emergency. As we know, the final outcome was less than hoped for, and possibly less than necessary.

This case took one more interesting turn during the course of discovery. A defense expert (a neurosurgeon from a renowned academic center) cited a then recently published study that indicated the outcome of cauda equina cases was dependent on the degree of injury, not the promptness of neurosurgical intervention. This raises the possibility of an affirmative legal defense called failure of causation.

In light of this study, it could be argued that the large herniation the patient suffered was never fixable, and the delays (although they were unnecessary and probably a deviation from the standard of care) did not affect the ultimate outcome. We don't know how effective this argument could have been as the case was settled before trial.

It is noteworthy that no allegation indicated that this procedure caused the disc herniation. Although the timing is suspicious, the herniation may have been simply coincidental with the procedure (one does wonder if some movement of the patient while he was under anesthesia contributed to the herniation, but that remains unknown and was not alleged in the legal complaint).

Summary Suggestions

The following suggestions may assist providers caring for patients following outpatient procedures:

- Effective strategies for communication are important when transitioning the responsibility for patient care and transferring patient information. When a handoff occurs (such as what occurred between Dr. K and the RN at the ASC), a structured approach to communication can help guide consistent transfer of critical clinical information that can support more efficient teamwork, contribute to better patient outcomes, and decrease the risk of errors. These handoff strategies should also be reviewed regularly to ensure that they are appropriate and being used correctly.
- Similarly, the use of standardized, evidence-based discharge criteria should be in place as a preventive strategy to reduce the risk of postdischarge patient deterioration and improve patient satisfaction. In this case, the ASC had a standardized discharge protocol in place that was not followed

(probably because of Dr. K's approval of the discharge). It can be speculated that, if this protocol had been followed, the patient might have had a better outcome.

- Not all potential problematic situations can be anticipated and guided by protocols, however. For this reason, facilities should have an established chain of command policy to address situations in which patient safety may be in jeopardy. A chain of command policy outlines the process to resolve administrative, clinical, or other patient safety issues by allowing front-line care providers to efficiently present an issue of concern through the lines of authority until a resolution is reached. In this case, if a chain of command policy had been in place, it may have been appropriate for the ASC RN to use it when Dr. K indicated that he could not come in to re-evaluate the patient; she definitely would have wanted to use it when the patient was approved for discharge in his then-present condition. ASC (and hospital) staff

should be regularly educated on the facility's chain of command policy, including the leadership's support of it.

- A diagnostic test ordered as "STAT" should be completed in a timely manner in compliance with facility policy for critical tests. If the test is unable to be completed, the information should be communicated to the ordering provider so appropriate clinical decision-making may be completed.
- When critical, time-sensitive patient conditions are identified such as through blood tests or imaging, the identifying person should immediately notify the managing provider. A critical test results policy, which every healthcare facility should have in place, would mandate the responsibility of timely notification of test results to providers and prevent a delay in taking necessary action that may result in a serious adverse outcome.
- Physicians should ensure that their advanced practice providers (nurse practitioners and PAs) are properly trained and experienced to appreciate the severity of the conditions they may

encounter in person, when communicating patient situations, and when reviewing patient health records. If *any* uncertainty regarding the patient's current status exists, an appropriate physician should be consulted. In many cases, physicians are legally responsible for the decisions and actions of their advanced practice providers when patient care and/or management is delegated to them.

- Complete and timely documentation of patient care is an essential risk strategy to perform in every case, especially when the patient is moving between

different facilities and providers. Although inadequate documentation may not appear to directly contribute to a suboptimal outcome, it has the potential to contribute to miscommunication as well as a challenging defense.

Conclusion

Iatrogenic injury has always been a part of healthcare delivery and may continue to be for some time. However, careful attention to patients during the posttreatment period, combined with prompt, appropriate intervention when the patient does not respond as expected, can be effective in preventing suboptimal outcomes.

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