

**Confidential Attorney Work Product**

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9/29/0000

Re: *Case of AM*

Dear Mr. B:

As you requested I have reviewed the available medical records for AM's accidental injury of January 18, 2009. These records included pre-injury history dating back to April 2004. My focus on this review is to discuss his new injuries sustained from his fall on the ice which have worsened his underlying condition and/or that were not present at all in his previous medical history. To help you better understand the multiple complex injuries Mr. M sustained as a direct result of the accident, I have discussed them in detail as well as included a comparative chart of pre and post fall spinal injuries (Appendix A).

Case overview

Mr. M was 5 weeks post surgery for removal of hardware from his lumbar spine and went to see his dentist. When getting out of his car, he slipped and fell on ice which covered the parking lot due to automatic water sprinklers being left on in sub-freezing temperatures. My understanding is he fell backwards then tried to get up, slipped again and then fell forward. He went to the Northwest Texas Healthcare System Emergency Department where he underwent x-rays which were negative for any acute abnormalities and was diagnosed by Dr. M with acute myofascial strain of the cervical, thoracic and lumbar spine.

Records of the following health care providers were reviewed:

1. Southwest Neuroscience and Spine Center, K. W, M.D., Physical Medicine and Rehabilitation
2. Southwest Neuroscience and Spine Center, BG, M.D.; CW, N.P.; SL, P.A., Neurosurgery
3. Southwest Neuroscience and Spine Center, DI, M.D.; WP, Jr.; DR, P.A., Pain Management
4. Southwest Neuroscience and Spine Center, JH, M.D., Neurology
5. Southwest Neuroscience and Spine Center, WP, M.D
6. Northwest Texas Healthcare System
7. Baptist St. Anthony's Health System
8. Amarillo Diagnostic Clinic, Todd Ellington, M.D.
9. PD, PhD, Psychologist
10. NM, M.D.

11. SS, PhD, Psychology

Pre-fall medical conditions/surgeries:

1. Lumbar fusion 1987
2. Post laminectomy syndrome with sciatica
3. Cervical pain
4. Lower back pain
5. Bilateral carpal tunnel syndrome and release
6. Depression
7. Headaches
8. Gastroesophageal reflux disease
9. Lumbar Degenerative Disc Disease
10. L3-S1 fusion & pedicle screw placement, L5-S1 cage placement, Bilateral laminectomies L3-S1
7/20/05
11. 2002 – Nissan fundoplication

Post-fall medical symptoms/clinical findings/diagnoses:

1. Acute cervical, thoracic and lumbar myofascial strain
2. Cervical spondylosis – C3-4
3. Cervical stenosis – C3-4
4. Cervical spasms
5. Cervical pain – refractory to treatment
6. Bulging cervical discs – C3-4, C4-5
7. Cervical cord flattening – C3-4
8. Loss of cervical lordosis and mild curvature of the cervical spine
9. Thoracic spasms
10. Bulging thoracic discs – T5-6, T6-7, T7-8, T8-9, T12-L1
11. Bulging lumbar discs – L1-2, L2-3, L5-S1

12. Lower back pain refractory to treatment
13. Thoracic cord deformity – T8-9
14. Bilateral lumbar facet arthropathy
15. Post laminectomy syndrome with radiculopathy of lower extremities
16. Upper extremity radiculopathy
17. Lower extremity radiculopathy
18. Leg pain
19. Muscle weakness/debility
20. Decreased reflex of right knee
21. Right inguinal hernia
22. Bilateral positive straight leg raises
23. Restricted movement of neck (unable to move side – side)
24. Gastroesophageal reflux disease, exacerbated, with esophageal ulcers
25. Clinical depression including suicidal ideation requiring psychotherapy and close monitoring
26. Elevated anxiety
27. Social withdrawal/isolation
28. Personality and mood changes

Potential diagnoses/conditions to consider investigating

1. Post traumatic stress disorder or acute stress disorder
2. Fibromyalgia

Post- fall surgeries/procedures

1. Lumbar and caudal epidural steroid injections: 2/8/08; 2/29/08
2. 3/31/08 - Anterior approach cervical discectomy and fusion – C3-4, C4-5; placement of graft and cervical plate
3. 7/8/08 – Right inguinal hernia repair with Bard plug and mesh
4. 9/26/08 - Trial spinal stimulator placement

5. 10/20/08 – Bilateral T10 laminotomies and placement of permanent spinal cord stimulator; (unable to place stimulator lead in midline position)
6. 1/29/09 – Bilateral T10 laminectomies, bilateral T9 laminotomies and removal of permanent spinal cord stimulator

Explanation of post fall injuries, procedures and symptoms

1. **Acute cervical, thoracic and lumbar myofascial strain** is injury to the muscles of the back usually precipitated by a traumatic event. It is the most common diagnosis for back pain of acute origin.
2. **Cervical spondylosis** – a condition caused by abnormal wear on the cartilage and bones of the cervical vertebrae. It results in mineral deposits and degeneration of the cushions between the vertebrae. The most common cause is degeneration from aging although a previous neck injury, muscular problem or trapped nerve can also be causative factors.
3. **Spinal stenosis** is narrowing of the spinal canal causing compression of the spinal cord and nerves. Causes can include disc herniation, osteoporosis or a tumor. It may invoke neurological symptoms such as numbness or tingling of the upper extremities.
4. **Cervical spasms** – neck muscles contract involuntarily and do not relax. They can be caused by injury or when a nerve to a muscle is irritated.
5. **Cervical pain – refractory to treatment.** Neck pain is considered intractable when it is not responsive to the treatments administered making it very difficult to obtain any relief from the pain. Unconventional treatments such as an intrathecal pump may be tried in an effort to provide relief.
6. **Bulging discs** – Trauma as well as degeneration can cause discs to compress, flatten and degenerate, keeping vital oxygen and nutrients from getting to the discs. The outside of a disc weakens causing the inner nucleus of the gel like center to bulge out or form a pouch but it has not formed a tear or leak into the outside of the disc.
7. **Cervical cord flattening** – Spinal stenosis can cause a flattened appearance of the cord due to indentation or compression of the spinal cord. This can lead to neurologic symptoms, which may become permanent disabilities.
8. **Loss of cervical lordosis** – The neck has a normal curve or lordosis which assists, along with the vertebrae, in adequately supporting the head on the neck. A loss in this curve, also known as kyphosis, may be caused from many things, including whiplash injury or spasms. Initially the loss may be mild but can progress to the point where the curve in the neck actually reverses and straightens the neck. In some people it causes headaches and neck pain especially in conjunction with other spinal problems.
9. **Thoracic cord deformity** – This is distortion sometimes producing compression of the spinal cord and is usually caused by inflammation of the tissues and can often be related to neurological myelopathy such as Mr. Mendoza experiences.

10. **Facet Arthropathy** – Facet joints are located in the posterior of the spine with 2 facet joints between the vertebrae of each spinal segment. A facet joint has two bony surfaces with cartilage between them and a capsule of ligaments surrounding it. The arthropathy is more commonly known as degenerative arthritis of the facet joints. Many people are misled to believe the condition is only related to aging of the spine and wear and tear. More accurately, the arthropathy also commonly develops from a previous back injury including fractures, torn ligaments and disc problems such as Mr. Mendoza has.
11. **Post laminectomy syndrome** – Persistence of pain and disability following a laminectomy.
12. **Radiculopathy** – a nerve root is compressed by a prolapsed disc causing pain and neurological symptoms such as numbness or tingling.
13. **Decreased right knee reflex** – The knee jerk reflex is diminished when lumbar disc herniations compress the S1 nerve root, or the L3 or L4 nerve root.
14. **Inguinal hernia** – An inguinal hernia forms when a bulge develops from a weak area in the lower abdominal muscles in between the abdomen and thigh. There are two types: indirect and direct. Indirect hernias are congenital. Direct hernias occur only in males and are the result of connective tissue degeneration which brings about weakening of the muscles. The following factors can contribute to the formation of a direct inguinal hernia: sudden twists, pulls or muscle strains, lifting heavy objects, straining, weight gain and chronic coughing. It must be surgically corrected. The fall Mr. Mendoza experienced which included sudden twisting and muscle strain was the cause of his inguinal hernia.
15. **Positive straight leg raises** – This is a test performed to evaluate for disc herniation. The patient lies face up then the leg is elevated by the clinician up to 70 degrees. A positive test reproduces radicular pain below the knee along the path of a nerve root in the 30 to 70 degree range. It can be further verified by lowering the leg 10 degrees from the point of radicular pain and dorsiflexing the foot. A positive test is 80% sensitive for disc herniation.
16. **Exacerbated gastroesophageal reflux disease (GERD)** – This is a condition also known as heartburn and is the result of malfunction of the esophageal sphincter causing stomach contents, which are very acidic, to back up into the esophagus. Inflammation of the esophagus can damage the lining and cause bleeding or ulcers. While stress is not the cause of GERD, it has been found to worsen the symptoms and the intensity of them. Mr. Mendoza has been under significant stress which can easily be determined to worsen his GERD which has also caused esophageal ulcers.
17. **Depression** – Chronic pain is often accompanied by depression. This type of depression is well beyond typical sadness or “feeling down”. The symptoms of major depression occur daily for at least two weeks. A study found that the rate of major depression increased with greater pain severity. Also found was that the combination of chronic back pain and depression was associated with greater disability. The person feels totally controlled by the pain with more and more loss of control over his life. Although, Mr. Mendoza has documentation of depression prior to his fall, it is

also documented that the severity and evolution of a more serious clinical depression has developed since the fall from his more serious injuries and greater pain intensity.

18. **Epidural Steroid Injections** – A corticosteroid is injected into the epidural space of the spine to help alleviate back pain.
19. **Anterior cervical discectomy and fusion with plate and graft** – This is a surgical procedure which is completed by making an incision near the front of the neck, then the intervertebral disc is removed, bone graft is placed between the adjacent vertebrae then a small metal plate is implanted to stabilize the spine.
20. **Inguinal hernia repair with plug and mesh** – A surgical procedure which returns the bulge to its normal position then a sheet of mesh with a connector plug is placed over the weak area to strengthen it.
21. **Spinal Cord Stimulator (SCS)** – This is an electric generator which works by generating electrical impulses to block perception of pain. Usually a trial one is placed first, which is less invasive, with the box being external or on the outside of the body. If successful, a permanent one is placed with the box being surgically implanted on the inside of the body. If not tolerated internally, it may be removed, such as the case with Mr. Mendoza.
22. **Laminectomy** – A surgical procedure which removes the vertebral bone called the lamina. It is done to treat pain and other symptoms of spinal stenosis.
23. **Laminotomy** – A surgical procedure which also involves the vertebral lamina but it is only partial removal of the lamina versus a laminectomy which is total removal of the bone.

Discussion of potential diagnoses/conditions to consider

1. **Fibromyalgia** is a chronic pain illness, characterized by widespread musculoskeletal aches, pain and stiffness, soft tissue tenderness, general fatigue and sleep disturbances. The most common sites of pain include the neck, back, shoulder, pelvic girdle area and hands; however any body part can be involved. These patients often complain of range of symptoms that vary in intensity that wax and wane over time. The pain is usually widespread and chronic, has no boundaries and migrates to several body areas. The fatigue is usually much more than being tired and is usually an "all encompassing" exhaustion. Sleep is often interrupted with burst of "awake-like" brain activity, limiting the time of restful, restorative sleep. Other symptoms sometimes associated with Fibromyalgia include; bowel and bladder problems, headaches and migraines, restless leg syndrome, memory and concentration problems. There are no labs or diagnostic studies available to diagnose Fibromyalgia so physician's generally depend on the history & physical examination.
2. **Post – traumatic stress disorder (PTSD)** – a mental illness that can occur after injury. A study has shown that many patients who experienced an orthopaedic trauma, developed symptoms of PTSD. Nearly 600 patients were in the study and more than half had symptoms of PTSD. It is not usually evident right after the accident but rather the symptoms typically develop over time. The emotional

effects of an injury can be difficult to deal with and psychiatric evaluation and treatment may be needed.

Conclusion/Recommendations

Located between the vertebrae are 23 intervertebral discs which are composed mainly of cartilage on the outer ring with an inner, jelly-like inner core. They function as a cushion to absorb the full force of gravity and all types of shocks that are transmitted through the vertebrae.

To summarize Mr. M's spinal injuries I reviewed his most recent pre-injury MRI's done 11/14/07, shortly before his fall 1/17/08, then compared to MRI's and CT scans conducted 3/11/08, 3/21/08 and 10/14/08 which are the most recent post-injury scans. Prior to his fall Mr. M only had abnormality with 4 of the 23 discs. After his fall, Mr. M had **new** injuries to **nine** discs, and there was worsening of the other 4 discs. Therefore, the total discs Mr. M has suffered injury to is 13. This means only 10 discs out of his whole spine are unaffected. (See Appendix A)

Regarding hospital or outpatient confinement due to this injury, he has spent 11 days either outpatient or inpatient for procedures and surgeries. In addition, 5 weeks earlier he was in the hospital 3 days for surgery to remove hardware. Ultimately the benefits from this surgery were "undone" after his fall on 1/18/09. These days only reflect actual time at the facility and not the weeks of recovery time also involved.

Subsequent to the January 18, 2009 fall, Mr. M's symptoms worsened substantially, became intolerable, and caused radiating symptoms into his lower extremities. With the multitude and complexity of the injuries previously described, Mr. M will always suffer from permanent and chronic back and leg nerve pain. His doctors have said there are absolutely no further treatment options except for pain management which will be for the remainder of his life. This pain is what precipitates Mr. M's feelings of hopelessness, and social isolation and withdrawal, as he has extremely poor quality of life due to his very limited physical functional abilities.

I would recommend that Mr. M be evaluated to see if he indeed meets the criteria for fibromyalgia and PTSD. This report is based on the available records. My opinion may be amended contingent on any further information that becomes available, including any additional records, facts or interpretations not known at the time this report was prepared. Thank you for consulting me for this interesting case. Please do not hesitate to contact me should you need any further assistance with this case.

Sincerely,

Linda Cain, RN, CLNC

References

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Fact Chronology

Authored by:

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Nationwide Medical-Legal Solutions**

Fact Chronology

11/2/2009 9:48 AM

Date & Time	Fact Text	Source(s)	Key	Linked Issues
Thu 04/08/2004	Initial visit with Dr K. Allan Ward, MD, Physical Medicine and Rehab doctor, regarding bilateral carpal tunnel syndrome. He also gave a clinical impression diagnosis of post laminectomy syndrome of the lumbar with sciatica. Reference was made that [redacted] had "stopped drinking."	Office visit note of Dr K. Allan Ward, MD		
Thu 05/13/2004	Follow-up with Dr K. Allan Ward, MD. Discussion included potential eligibility for Social Security Disability.	Office visit note of Dr K. Allan Ward, MD		
Tue 05/25/2004	Initial visit with Dr Brett Gentry, MD for right arm and hand numbness. He also documents c/o Neck pain. Scheduled for carpal tunnel surgery.	Office visit note of Dr Brett Gentry, MD		
Fri 08/06/2004	"continues to have Neck pain and low Back pain." Previous MRI of neck "fairly unremarkable"	Office visit note of Dr Brett Gentry, MD		
Wed 08/11/2004	Initial visit with Dr Dennis Ice, MD for Pain management. "...Back pain persists, allowing him to sit or stand for only 20 min without his legs going numb." Past surgical history: Carpal tunnel, stomach, cholecystectomy, Lumbar fusion. "Sober since 2003." Assessment: lumbar Post laminectomy syndrome. Depression, secondary to general medical condition." Also has anxiety and insomnia but denies suicidal ideation. Reference to history of alcoholism.	Office visit note of Dr Dennis Ice, MD	✓	
Fri 08/20/2004	Review of MRI by Dr Brett Gentry, MD. Mild multi-level degenerative changes. Bulging disc at L5-S1. Disc degeneration at 5-1, 4-5, 3-4 and skipping to 2-3 and even higher. Evidence of a fusion though thin, L4-5 and possible L5-S1.	Office visit note of Dr Brett Gentry, MD	✓	
Mon 10/04/2004	F/U with Dr Dennis Ice, MD. "Back pain going down into the left leg. lumbar Post laminectomy syndrome." Electrodiagnostic test showed "normal nerve conduction velocities and no needle EMG abnormalities."	Office visit note of Dr Dennis Ice, MD		
Thu 10/28/2004	Seen by Dr Brett Gentry, MD. c/o Back pain that has	Office visit note of Dr		

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11/2/2009 9:48 AM

Date & Time	Fact Text	Source(s)	Key	Linked Issues
**	worsened from physical therapy. Recent MRI - "no significant nerve compression." Neck MRI negative.	Brett Gentry, MD	**	**
Mon 11/29/2004	Follow-up with Dr Dennis Ice, MD. "not able to walk more than 1/4 mile every other day. He cannot do simple things around the house because of his pain." Changed pain Medication from Avinza to OxyContin. Previously unresponsive to epidural steroid injection.	Office visit note of Dr Dennis Ice, MD		
Wed 12/08/2004	Not tolerating his pain Medication, Oxycontin. Changed his Medication to Duragesic patch.	Office visit note of Dr Dennis Ice, MD and D. Reeves PA		
Tue 12/21/2004	Unable to tolerate the Duragesic patch pain Medication. Changed to Zanaflex. Review of Thoracic spine x-ray which showed mild degenerative changes. Previous MRI 8/12 showed mild disc desiccation/degeneration at L3-4, 4-5, T11-12, T12-L1 and L1-2. "Antalgic gait" [limp]	Office visit note of Dr Dennis Ice, MD and D. Reeves PA		
Tue 01/04/2005	Had medial branch blocks on 12/21 which only helped for about an hour. c/o headache. "gait is normal." Bilateral lumbar medial branch rhizotomies were done. On the 1/10 Office visit , Mr Antonio Mendoza stated it did not help.	Office visit note of Dr Dennis Ice, MD		
Wed 07/20/2005	Operation by Dr Brett Gentry, MD. L3-S1 posterolateral fusion, L5-S1 lift with placement of cage with BMP, Pedicle screw placement bilateral L3, L4, L5 and S1 for pseudoarthrosis, lumbar degenerative disc disease and L5-S1 herniation.	Northwest Texas Healthcare System operative report	✓	
Thu 10/20/2005	Follow-up with Chil Chil Wilson ACNP for Dr Brett Gentry, MD. Fell in tub about one week prior and has sacral pain. Continues to have some left hip pain. Started on PT.	Office visit note of Dr Brett Gentry, MD	✓	
Thu 01/05/2006	Referral back to Dr Dennis Ice, MD for right lower lumbosacral pain. Medication includes hydorcodone which he states he couldn't tolerate, and ultracet. Lyrica was added.	Office visit note of Dr Dennis Ice, MD and D. Reeves PA		