THE SULLIVAN GROUP

TSG NEWSLETTER

SAVING LIVES - REDUCING RISK

From The Editor

Welcome to the TSG Spring Newsletter. In the Chicago area it seemed spring would never arrive! But the snow is finally gone, the trees are in bloom, and that means it's time for the spring edition of the TSG Newsletter.

In this issue we address an urgent EMTALA issue. The EMTALA situation is getting "ugly" as federal circuit courts are deciding that they disagree with certain aspects of the CMS interpretation of the law. As you will see, this has led to dramatic differences in EMTALA interpretation between the various federal circuits and has a direct impact on your practice.

We also review a case of failure to diagnose myocardial infarction. The facts of this case are very interesting and serve as a reminder that patients presenting with chest pain continue to pose significant safety and risk issues. Our subsequent discussion focuses on "how physicians think" and we present a "cognitive autopsy" to explore this thinking process. Enjoy!

In This Issue...

Sixth Federal Circuit Will Not Follow CMS EMTALA "Admission" Provisions

The 6th Federal Circuit has rendered a very interesting ruling regarding the recent EMTALA regulatory changes by CMS related to admitted patients (Moses v. Providence Hospital and Medical Centers. April, 2009. U.S. Court of Appeals for the Sixth Circuit). This is a "must read" and practitioners in the 6th circuit have to recognize that the federal court just made a dramatic change

in EMTALA interpretation. Basically, this case is now precedent for practitioners and hospitals in Ohio, Michigan, Kentucky, and Tennessee.

Background

The most recent EMTALA regulatory update and interpretive guidelines indicate that once a patient has been admitted "in good faith" the hospital's EMTALA obligations end.

TSG Comment: In general that was favorable for medical practitioners and hospitals as it significantly decreased scope of application of the law.

However, the 6th federal circuit court has decided that this recent regulatory change is not consistent with the original intent of the law and in the following case the court disregarded the new regulations!

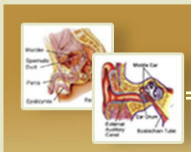
Facts Of The Case

In this case the patient presented to an emergency department with several complaints. Among them was his family's concern about the patient's threatening behavior. The emergency physician provided a medical screening examination and admitted the patient for further evaluation and management.

The patient was treated as an inpatient by the hospital for six days for his psychiatric and other conditions. He was discharged and subsequently murdered his wife. The victim's estate alleged that the hospital violated EMTALA by discharging the patient before he was stabilized.

The hospital moved to dismiss the case based on the recent CMS regulatory change that EMTALA no longer applies to admitted patients.

The court noted that in general courts give deference to administrative regulations unless the regulation is contrary to the clear congressional intent of the relevant statute. In this case the court determined that this CMS rule appears contrary to the plain language of EMTALA which requires the hospital to "provide … for such further medical examination



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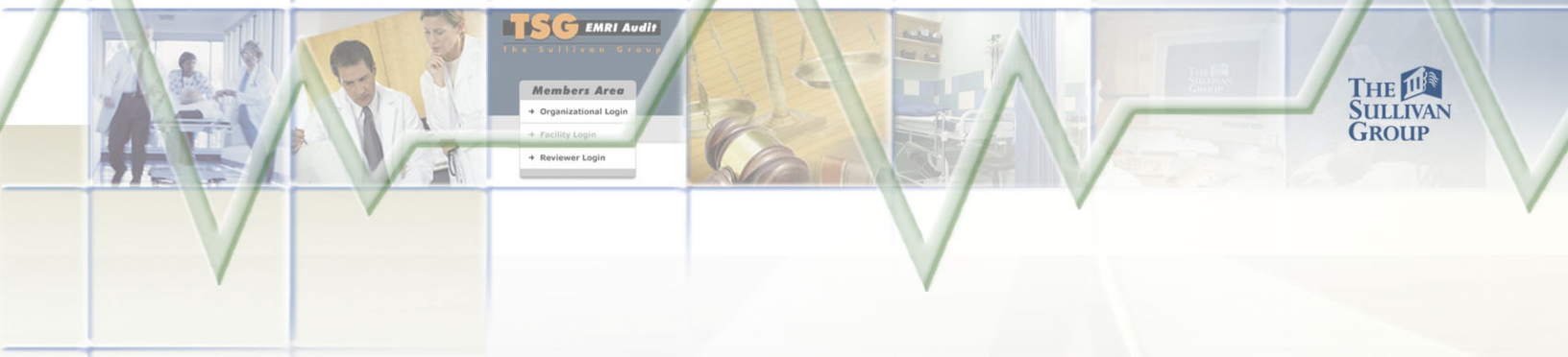


and such treatment as may be required to stabilize the medical condition." The court noted that the EMTALA statute provided for treatment and stabilization and the congressional intent was not to allow hospitals to satisfy EMTALA requirements by simply admitting patients to the hospital.

Discussion

This is a big deal! The federal courts are poking holes in the CMS regulations hospitals and practitioners rely on. For example, the CMS rules and interpretive guidelines indicate that ambulance radio contact does not establish a hospital EMTALA obligation. The 1st and 9th circuits however, after careful scrutiny of the statute and regulations, have determined that EMS contact does establish an EMTALA obligation to screen and stabilize. And, in this case under consideration, CMS regulations state that a hospital's EMTALA obligation stops on patient admission (assuming a good faith admission). The 6th circuit court disagrees with this CMS rule and created precedent in its four states.

It will become increasingly difficult, if not impossible, to manage care and conduct consistent with EMTALA if the federal courts continue to carve out exceptions from CMS regulations. Differences in interpretation among the circuits are typically resolved by the U.S. Supreme Court, but the process usually takes years.

Years spent in court are not productive. EMTALA has a direct impact on patient care, sometimes positive (i.e. stops dumping) and other times negative (i.e. drives specialists off the on-call lists). CMS and the federal courts should look to an authoritative body on this subject rather than be swayed by the day-to-day considerations of individual cases and creative lawyers ■

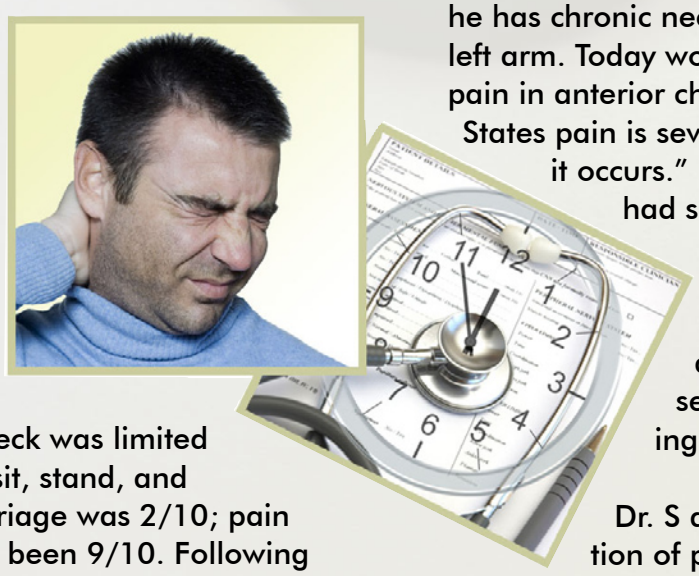
Emergency Medicine Malpractice Case Review

The following medical malpractice case was recently settled on behalf of an emergency physician and the hospital. The case involves the failure to diagnose unstable angina resulting in the patient's death. As you review the documentation from the medical record and information from the depositions, consider the ultimate diagnosis. Should the emergency physician have considered acute coronary syndrome or other diagnoses in the

differential diagnosis? Also examine the physician's thought process. Where did his thinking take a wrong turn?

Arrival And Triage

Mr. D and his wife presented to the emergency department (ED) by car at 5:00 p.m. Mr. D complained to the triage nurse that he was experiencing neck pain and told her that he had a prior neck injury 4 years ago. His triage vitals were: BP 210/120, P 104, R 20, and Temp. 98^{0}F.



The triage nurse noted that Mr. D denied fever, swelling, or redness to the area, and had no urinary or bowel difficulty and no motor weakness. Movement of his neck was limited by pain. He could sit, stand, and walk. Pain during triage was 2/10; pain prior to arrival had been 9/10. Following rapid triage, the patient was moved into a stretcher space in the main ED.

Primary Nurse Evaluation

The medical record contains a notation by the primary nurse that Mr. D was "working with the snow blower today and reports severe neck pain which comes and goes dependent on how he moves his neck." The primary nurse noted a past medical history of hypertension, diabetes, and a prior neck injury.

Emergency Physician Evaluation

The emergency physician, Dr. S, examined Mr. D at 5:30 p.m. noting "Patient states he has chronic neck pain and pain into the left arm. Today working on snow blower – pain in anterior chest and right neck pain. States pain is severe and intolerable when it occurs." Dr. S also noted that Mr. D had similar pain earlier in the week and had seen his internist in the office. The internist scheduled an appointment for Mr. D to see a neurosurgeon regarding the neck discomfort.

Dr. S documented that the duration of pain was 12 hours and it was abrupt in onset. Pain location was right neck and chest area. Mr. D stated that he had chronic neck pain related to a fall several years before.

Prior to arrival, when he had the pain, it was difficult to breathe. The emergency physician noted that the patient had a "negative cardiac work up in another ED previously."

The patient's past medical history included hypertension, non-insulin dependent diabetes, and spinal stenosis.

On physical examination, Dr. S noted that Mr. D was in mild distress with a decrease in ROM of the neck, which he attributed to known spinal stenosis. The heart rate was regular, lungs were clear, abdomen WNL, back WNL, extremities WNL, and the neurologic exam was WNL. Gait was normal.

Dr. S attributed the patient's presentation to known cervical stenosis with radiculopathy, and provided a follow-up discharge instruction recommending that Mr. D keep his appointment with the neurosurgeon in 2 days. In his medical decision-making and discharge notes Dr. S noted that the patient "Presents with increased neck pain and chest pain. At this time, pain free." He also noted that Mr. D's chest pain history was considered, "patient had work up previous for heart – felt this to be more related to cervical issues."

Dr. S did not order any lab, radiology, or ECG evaluation. The discharge diagnosis

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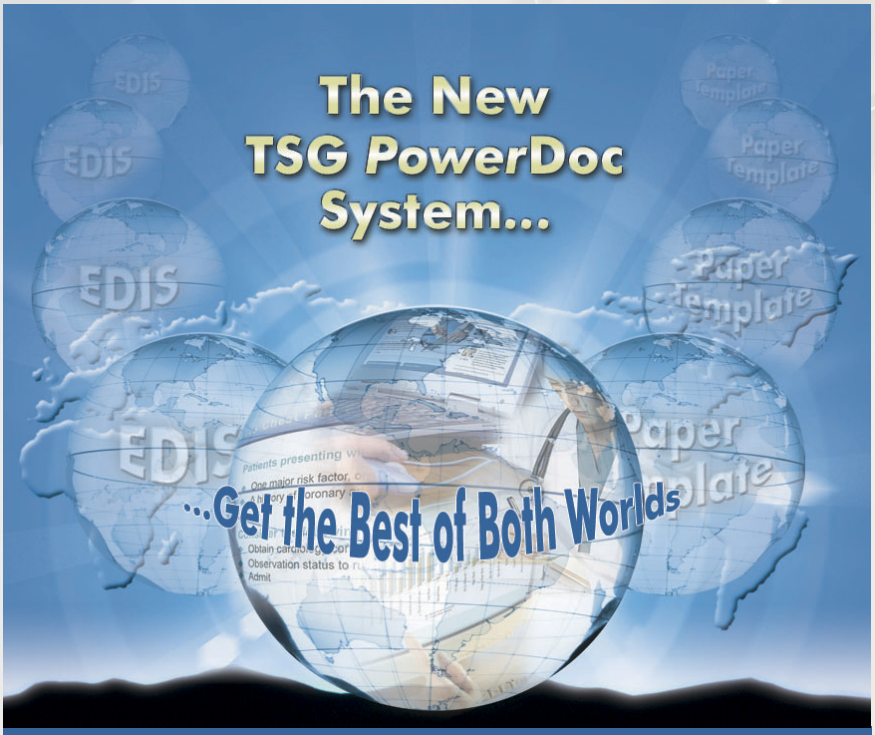

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was "Cervical Radiculopathy and Diabetes." Mr. D was discharged home at 6:20 p.m. in stable condition with instructions to keep his appointment with the neurosurgeon.

Events Post Discharge

Mr. D and his wife returned home. He continued to have some discomfort. The couple had dinner together and then sat down to watch television at approximately 8:00 p.m. Mr. D went into cardiac arrest in front of his wife at approximately 8:15 p.m. Mrs. D called 911. The paramedics found Mr. D. pulseless and apneic. His pupils were fixed and dilated and lung sounds were absent. CPR was initiated and continued while en route to the emergency department. Mr. D was asystolic on arrival; advanced life support was initiated but was unsuccessful. Dr. S was still on duty at the time.

Dr. S documented: "Patient seen by me earlier today with cervical neck/arm and chest pain, secondary to radiculopathy. Pain free when seen earlier. Wife states patient had episode of pain in parking lot, but refused to return to ED. Went home – took medication – became unresponsive. Wife states pain had resolved prior to episode of unresponsiveness."

Calling All Cases

If you have an interesting and pertinent case you would like incorporated into a course or otherwise shared with the TSG community, please send the de-identified information to dansullivan@thesullivangroup.com or to our address on page 13.

The autopsy revealed the cause of death to be acute myocardial infarction. The family sued the hospital, internist, and emergency physician alleging that they fell below the standard of care in failing to recognize acute coronary artery disease and in failing to prevent his death.

Deposition Testimony

Salient Points From Mrs. D's Testimony

1. With regard to the prior "cardiac work-up," Mrs. D testified that her husband went to an ER approximately two years prior to the ED visit at issue because he was scared and thought he might have a heart problem. He was "cleared by the ER." On further analysis of this issue

there was no further cardiac evaluation following the prior ER visit. The medical records from that visit indicated that the prior ER evaluation consisted of one set of cardiac markers, one ECG, and a referral to his primary physician.

2. With regard to this ED visit, Mrs. D testified that Mr. D had a bout of sweating and fluttering in the upper left chest that morning. Mr. D took two Advil and applied ice to his upper chest. The pain improved. The same symptoms reoccurred that afternoon, and he iced his chest again. After the third occurrence they went to the hospital. Mrs. D insists that they told at least the nurse that Mr. D had three events that day. This fact was not charted. They were discharged from the ER. The pain happened again in the parking lot. Mrs. D testified that she told her husband to go back into the ER, but he refused. He had a similar event at home while watching TV just before he became unconscious.

The Emergency Physician, Dr. S testified:

1. Dr. S was focused on the neck pain and prior cervical history. He considered the chest pain, but felt that based upon the prior cardiac work-up a cardiac problem was unlikely.
2. During the deposition the plaintiff's attorney questioned Dr. S regarding a letter that he had written to the state medical disciplinary board. In the letter Dr. S pointed out that:

   a. He saw Mr. D for a complaint of neck and arm pain;
   b. The patient had cervical stenosis at C 3-4 and C 4-5 proven by MRI;
   c. The patient had seen an internist two days prior for similar problems;
   d. The internist provided an appointment to see a neurosurgeon;
   e. The patient had chronic pain and needed more pain medication until he could follow up with the neurosurgeon;
   f. The patient had a negative cardiac work up in the "recent past;"
   g. The pain increased with certain movements of the neck;
   h. The patient was discharged in stable condition and ambulated without difficulty;
   i. The patient was brought back 3 hours later with CPR in progress;
   j. "Given the history of pain with movement of his neck and arm, a

positive MRI and upcoming surgical evaluation, the negative cardiac workup in the past, and a recent evaluation by an internist, on review of the case I don't know what I would have done differently during the initial visit."

Nursing Depositions

The nurses testified that they had no recollection of the patient complaining of multiple episodes of discomfort throughout the day. They did not document that the patient or his wife offered that as a complaint.

Plaintiff's Expert Depositions

Plaintiff's expert #1 testified that the care was substandard. He made the following points:

1. Dr. S should have considered a cardiac cause for Mr. D's pain.
2. There is no indication in the records that Dr. S knew what the prior cardiac work-up consisted of or when it was done. It was not appropriate to rely on this nebulous prior cardiac work-up.
3. The patient was high-risk for coronary artery disease.
4. The patient had prior neck pain. He presented with new chest pain and related

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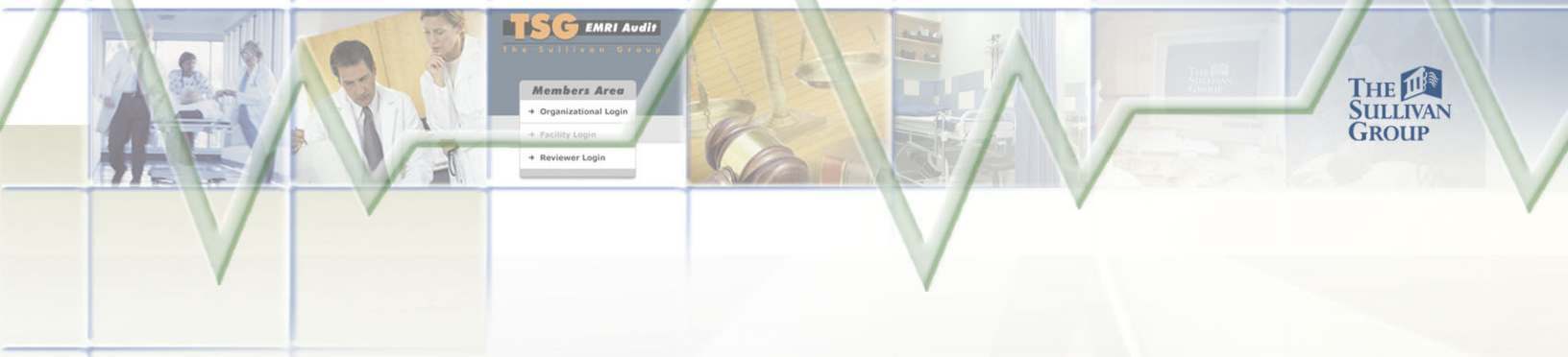


the strenuous activity of snow blowing. Dr. S should have considered unstable angina in his differential diagnosis.

5. The standard of care required that Dr. S admit Mr. D to the hospital for serial electrocardiograms, cardiac markers, and a cardiac stress imaging study.
6. The failure to admit Mr. D under these circumstances violates that standard of care.
7. Mr. D should have been admitted to the hospital where he would have had a continuous heart monitor, received medication to protect against cardiac injury, and have had serial testing done.
8. If he had a dysrhythmia under these conditions, more likely than not, immediate response would have corrected the rhythm disturbance, allowing Mr. D to live and to have appropriate coronary artery intervention to ameliorate the disease process.

Plaintiff's expert #2 also testified that Dr. S's care was substandard.

1. The patient had onset of chest and neck pain while working with the snow blower.
2. He had multiple risk factors for coronary artery disease.
3. The patient should have been admitted.
4. The patient required serial testing and continuous monitoring.

Defense Expert Testimony

Defense expert #1 could not support Dr. S's care.

Defense expert #2 could not support Dr. S's care.

Defense expert #3 indicated that he could support Dr. S's care and that he was very critical of the patient for not returning to the ED when he developed pain in the parking lot.

Outcome

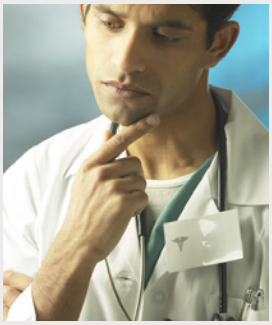
Based on the facts of the case and the lukewarm response from the defense emergency medicine experts, the insured medical group and insurance company recommended settlement. The physician was adamant that the case should not be settled. The plaintiff's first offer was one million dollars.

Based on the decedent's low yearly income and the fact that this was a wrongful death case, they offered the plaintiff $300,000. The parties settled at $500,000.

Discussion

There are a large number of learning points in this case, many of which are readily apparent without lengthy explanation. It is worthwhile, however, to undergo a cognitive autopsy in order to "drill down" on the physician's thought process. Dr. S is a competent board certified emergency physician, has diagnosed coronary artery disease many times, and understands the atypical presentations of this entity. So what happened? Why did he miss this diagnosis?

To figure that out, let's analyze how physicians think. What adverse cognitive influences were at play here? Thanks are due to the many authors who have attempted to analyze the cognitive process (how physician's think), and to those who have offered tips, tricks, and techniques to avoid cognitive errors and pitfalls. In order to do a cognitive autopsy it is important to put yourself in the shoes of this practitioner, and understand his timeline that evening in the ED.

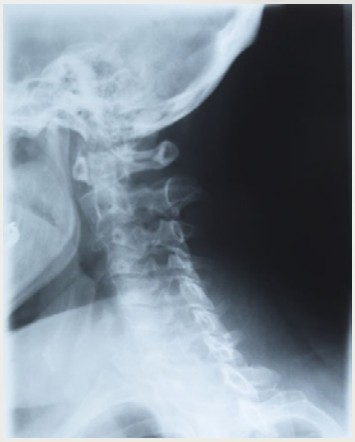


1. **Triage Cueing.** The first element that may have influenced decision-making was the triage nurse's documentation. If you were to briefly glance at the triage note, while caring for several other patients, what would your first impression be? The triage nurse recorded neck pain and a prior neck injury, and mentioned nothing about chest pain. It is remarkable the power that triage evaluation and documentation can have on the subsequent course of events in the ED. So in our cognitive autopsy, the triage nurse may have subtly influenced the physician's thought process.

2. **The Primary Nurse & Diagnostic Momentum.** Assuming that the physician read the primary nurse's note, it may have reinforced the triage nurse's impression that the patient was presenting with a primary neck problem. In fact, the triage nurse's thought process may have limited the primary nurse's thought process and the breadth of her diagnostic considerations. Once a member of the team proposes a possible diagnosis, that entity gains "Diagnostic Momentum." Other practitioners are subtly invited to jump on board. The more members of the team that buy into or articulate that thought process, the more it sticks.

The primary nurse actually elicited the snow blower history. That plus an onset of pain would typically make many ED nurses consider coronary artery disease. From her deposition she indicated she never considered the diagnosis.

3. **Clinical Search Satisfaction And Anchoring.** Patients present with problems and clinicians have an overwhelming internal need for answers. This patient presented with an answer: a prior neck injury with cervical stenosis. Very satisfying!



   a. The pain increased with movement, consistent with a cervical spine problem.
   b. Ice made it feel better.
   c. The patient had seen an internist two days prior who thought it was a cervical spine problem and gave the patient an appointment with a neurosurgeon. More satisfaction.
   d. The triage nurse thought it was c-spine.
   e. The primary nurse thought it was c-spine.

The physician, once satisfied, anchored on the c-spine diagnosis. Once a cognitive anchor takes hold, it is very difficult to get the mental navigation process started again.

4. **Premature Diagnostic Closure.** Clearly the physician decided this was neck pain related to a prior c-spine injury and did not seriously consider another diagnosis. This diagnostic closure occurred in the face of the following facts that were known to the physician during the visit:
   a. Chest pain that started while snow blowing without a prior similar history (i.e. new onset of chest pain with exertion).
   b. The onset of pain was abrupt (suggesting a possible problem with the aorta).
   c. The patient had several risk factors for coronary artery disease.
   d. The patient became short of breath when he had pain.
   e. The patient had a prior cardiac work up. It is clear from the depositions that the physician did not know when that occurred and did not know what it consisted of.

With this in mind, how is it possible that the physician did not consider acute coronary syndrome in his differential? He says he did, but without a single order related to possible ischemia or infarction it was clearly not a serious consideration.

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The cognitive trap here is that there was search satisfaction, anchoring, and premature closure of the diagnostic thought process.

You may feel that given these facts you definitely would have considered coronary artery disease. However, if you spend time researching the physician thought process, you learn that these cognitive forces can be extraordinarily powerful, particularly in the high-speed, high-stress environment of emergency medicine. Dr. S is a residency trained, board certified, veteran emergency physician. In retrospect he cannot understand how he made this error in judgment. Truly none of us are immune. The key is to understand and control these cognitive traps.

5. **Ying-Yang Out.** This is another common cognitive trap. The patient's problem has already been worked up, so there is no reason to re-evaluate. Or the practitioner feels that the problem has been worked up the "Ying-Yang" so it is time to close the diagnostic thought process. In this case the emergency physician articulated that a possible cardiac problem had already been worked up. Given that fact, he opted for the c-spine diagnosis. In addition, the patient had seen an internist within the last few days. These facts gave the emergency physician false assurance that the chest pain complaint did not need further evaluation.

A Few Additional Points Are Worth Consideration

- Although arguably atypical, Mr. D's presentation was close enough to consider the possibility of acute coronary syndrome.
- Even if the facts strongly suggested that ultimately this was an exacerbation of a chronic neck problem, this patient needed serial testing and further monitoring to rule out cardiac disease.
- Unfortunately, the plaintiff's experts were correct. It was a medical error to rely on a report of a prior cardiac workup. The physician should have explored the

nature of the prior evaluation.

- In addition, based on the abrupt onset of pain, perhaps Dr. S should have considered thoracic aortic dissection in the differential diagnosis.
- It's all in the history. We heard it in medical school, then we heard it in residency, and this simple fact is apparent day after day in every diagnostic medical specialty – It's all in the history. This patient had a fairly dramatic history of pain throughout the day. No one on the medical team elicited that history. More time spent with Mr. D, opening the door to a full explanation of the events of the day, may have saved his life.
- The ED team should utilize a low threshold for initiating the cardiac evaluation.

Did Mr. D share medical legal fault for not returning to the emergency department?

He may well have contributed to his own demise. His wife urged him to return to the ER, but he refused. One of the defense experts reasonably found Mr. D partially accountable for his refusal. When facts like these make their way into the courtroom, the judge and jury must consider whether there was contributory negligence. That is, did the patient contribute to his own injury? These facts certainly suggest that Mr. D bore some responsibility although the case was settled so that issue was never litigated.

Conclusion

This was an unfortunate case of failure to diagnose myocardial infarction. Although the frequency of missed MI has decreased in recent years, it remains one of the major patient safety and risk management issues in emergency medicine. Failure to diagnose is the most common cause of medical malpractice in emergency medicine. An analysis of failure to diagnose cases indicates that errors in medical judgment are most often the root of the problem. Therefore, an analysis of how physicians think is an important tool in improving patient safety and reducing medical errors. Consider performing a cognitive autopsy when conducting peer review or perhaps when conducting a morbidity and mortality review ■

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