Sharing decisions around stress testing

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Story from the Front Lines:

Evidenced based medicine has become the cornerstone of medical practice. Along with regular review of current literature, there are clear guidelines to help physicians in their clinical decision-making. For the purposes of this piece, that decision-making relates to cardiac testing, and, more specifically, when it is and is not indicated. While algorithms and guidelines may be helpful for clinicians, they may not provide much reassurance for the anxious and worried patient.

Mr. V was one of those patients. He had a history of cardiac disease, notable for poorly controlled hypertension and an NSTEMI two years prior, with multiple stents placed over the next several months. He came to the emergency room with two days of intermittent non-exertional chest pain that was not associated with any difficulty breathing or other symptoms. His blood pressure was markedly elevated to 240/140; his EKG was unchanged and his serum troponin was just at the lower threshold of “indeterminate.” He was immediately given medications to control his blood pressure, which quickly improved to the 170s along with resolution of his chest pain, which then did not recur over the next 24hrs while his home medication regimen was restarted. Subsequent EKGS and serum troponins were negative.

Quick resolution of chest pain with control of his blood pressure was reassuring to almost everyone, with exception of the patient himself. He remained adamant that he needed “a test for my heart,” despite reassurance that there was no true indication for this, given that it would not alter management of his coronary disease. In the end, however, a nuclear stress test was ultimately performed, to his satisfaction but to the consternation of many of his medical team members.

Teachable Moment:

What was the right thing to do? Perform a test with potential adverse consequences to appease a demanding patient? Or refuse to perform the test in a frightened and vulnerable man already experienced in the realm of coronary disease?

On one hand, there are well-established risks to any procedure: radiation exposure, false positives, and false negatives, just to name a few. Regardless of the result of the current study, this relatively young patient with known CAD has a very high chance of needing additional testing in the future, when it might be very clearly indicated. Thus he’s perfectly positioned for exposure to ever increasing amounts of radiation over his lifetime, which has been observed to increase risk of malignancy even at the doses received during cardiac procedures.

And what of a false positive test? Supposed he was then to undergo coronary angiography that was later complicated by a retroperitoneal bleed. Or perhaps he’d be so unlucky as to suffer mechanical destabilization and embolization of an atherosclerotic plaque. And of course these immediate and individual consequences don’t include the societal issue of skyrocketing health care costs, to which unnecessary testing is known to be a substantial contributor. Was providing reassurance to the patient enough of a reason to take these risks? Was he even aware these risks exist?
What about the patient’s own fears and, he might’ve argued, his intuition? All attempts at educated and simplified explanation seemed futile in reassuring him that medical management of his coronary disease was a more appropriate approach than a stress test. If the test wasn’t performed, he might’ve been discharged in a state of ongoing fear and worry, leading to unknown consequences that might affect not only his physical but psychological health as well. And the possible mistrust of the medical community as a whole might’ve led to even greater issues with non-compliance and risk of worse outcomes in the future.

What could’ve been done differently, to avoid the potential for harm while still ensuring the patient would return home confident and possibly even inclined to comply with his medications? I would argue that the greatest opportunity for remediating the situation was in the communication between the patient and his providers. It’s true that this man did have limited health literacy but communicating complex information to a wide array of patients, in a way they can understand, is one of the most challenging but important burdens placed upon us as clinicians.

In this era of shared decision-making, the emphasis is largely placed on shared; Mr. V was told that a stress test wasn’t necessary, but he most likely didn’t understand exactly why, because who was going to take the time to explain the results of numerous studies to him? We as physicians may have a clear plan in our heads based on our years of experience and review of literature and guidelines, but that plan is valueless if we can’t communicate it to our patients and implement it in a way that is meaningful and agreeable to them. This is easy enough to say but much harder in practice when we’re stretched thin with other patients and tasks that demand our attention. Nonetheless, it is our responsibility and obligation to treat our patients, individually and as a population, in ways that we know to be correct and evidence based, even if it might be difficult and time consuming to sell to the patients themselves. We owe it to them to provide the best care that our knowledge and current standards will allow, even if that means convincing them to do less.

References
