

FIELD NOTES | FALL 2017

## The Long Ride

By Ali Tahvildari

It was one of those mornings when time slips away at an alarming rate. An unanticipated curveball, a patient's allergic reaction to IV contrast, had set me back, forcing me to rush through the growing list of imaging studies I had to interpret. And I was running late to our weekly autopsy conference.

Three minutes before noon, I hurried from the radiology reading room across the hospital, carrying lunch in my pocket—a granola bar. It was best to eat now, because the odor of the morgue would make it less appetizing later. I pressed the button for the 4<sup>th</sup> floor and unwrapped my feast, when an impatient hand popped between the closing doors.

It was one of the primary care doctors. I'd just read one of his patient's studies. The scan was a chest CT to follow a lung nodule. This patient, a 42-year-old man, had been trapped on the long, downward-spiraling rollercoaster of incidental findings. The ride began with a lumbar spine MRI, ordered for back pain. The MRI picked up an incidental renal cyst, which led to a renal ultrasound, which caught an incidental liver lesion, leading to an abdominal CT. That CT found the incidental lung nodule which begat the Chest CT I'd read today...and it showed a large thyroid nodule. We can't differentiate benign and malignant thyroid nodules on CT. And even though the probability of a clinically significant malignancy is very low, I followed guidelines and recommended a thyroid ultrasound for further evaluation. Imaging: The gift that keeps on giving!

"Hi," he said curtly, pushing the already lit '4' button.

Mouth full, I nodded in reply.

"Busy today."

"Yeah." I took another bite.

"I bet it takes up a lot of time recommending more studies." He smirked. "Do you get paid by the number of times you say 'correlate clinically'?"

They say jokes are wrapped in true feelings. Here, doused generously in biting sarcasm, was the standard attack on radiology. We hedge. We keep recommending more tests. We pass the buck. Don't you know radiologists are magicians? Send them one question, and they'll transform it into four!

And wasn't I accustomed to such criticisms by now? These are things all radiologists hear. But did it have to be now, during this elevator ride? My chewing slowed. I was buying myself time to respond. Getting through these three floors seemed like facing an eternity. Should I say, *I'm sorry?* I could imagine my report leaving his patient worry stricken, forcing my colleague to add a few extra minutes to his already rushed appointment for

reassurances, delaying his next patient, who'd be disgruntled for being kept waiting, and there would go more minutes lost to apologies.

Should I solicit his suggestions, like a customer service agent? Would you like me to use softer language to give you more wiggle room? Instead "Recommend thyroid ultrasound", I could say "Consider" or "Suggest." Would that help you out? When I was in training, another department asked Radiology to make a similar switch. They said that "Recommend" put too much pressure on them to order more tests, even when they thought them unnecessary. It was a 'medicolegal' trap. If they didn't do the test, a lawyer might pounce on them.

Should I defend myself? Come on, I didn't actually say 'correlate clinically'...this time at least. I don't use that phrase as often as some, but I understand the stigma remains on us all. Spread the blame? Pathologists use it, too!

No, there was no point in dragging pathologists under the bus. Especially on my way to autopsy conference, a joint effort between our two departments to correlate imaging with the patient's pathology. We're sibling fields of diagnostics: ours is less invasive, but theirs is more accurate.

Haven't you considered that "correlate clinically" might give you another 'out'? If you don't think an additional test will change your management, then you don't need to order it!

I stopped myself. These were merely word games. Like using a spritz of air-freshener to mask decaying garbage. Wait, was I the garbage in this scenario? Scrap that. I wondered if I could just slip out of the elevator without things getting too awkward. Just then, the elevator stopped on the second floor. A harried nurse entered and jammed the '3' button repeatedly.

"Seriously?" I shouted on the inside. That's what stairs are for! It was becoming the longest elevator ride of my life.

I pondered a new approach. What was his responsibility for this imaging rollercoaster? Sure, I could be over-diagnosing. But I didn't give that patient a renal cyst or thyroid nodule. I'm simply interpreting what I see on the scan. Perhaps you shouldn't have ordered that lumbar MRI to begin with! Back pain is notorious for creating unnecessary imaging tests. Haven't you seen the guidelines? Which guidelines, you ask? Any of them! You're upset that I didn't give you a definitive answer. Don't you understand that there often isn't one?

No, no, no. It was too aggressive.

The nurse exited on the third floor, but I didn't dare look at my colleague. I still needed time. One floor left.

Redirect your frustration. It's not really me you're upset with. It's uncertainty, yours and mine—the uncertainty inherent in medicine.

We like to think that science is a field of iron-clad facts. We've been taught these 'truths' since elementary school. What goes up must come down. Opposite charges attract. There are nine planets in our solar system. Or is it eight, now? Oh, it might be back to nine again?

Medicine has advanced from good and evil humors to DNA sequencing and organ transplantation. PubMed, the index of biomedical research abstracts, contains 19 million entries. That's a lot of research! From this, every medical society worth its salt publishes its own practice guidelines and management recommendations. Sometimes, these recommendations disagree, disparate factions staking their own claims.

You'd think we'd know everything there is to know about the human body by now, but the road still stretches out before us; we have a long way yet to go.

You know the phrase "you're either pregnant or you're not?" How people use it to mean there's no gray zone? Well, funny enough, on a first trimester ultrasound, there's a small window of uncertainty. The urine pregnancy test could be positive and a woman might not have a visible intrauterine pregnancy. It could simply be too early, or else a miscarriage, or even a life-threatening ectopic pregnancy. In this situation, we must say, "Correlate clinically with beta-hCG trend and recommend ultrasound follow up."

So, it's not that I'm not skilled enough to give you a definitive diagnosis. Sometimes, a 'single answer' doesn't exist, at least by imaging. Harmless and harmful diseases can have overlapping features. It comes down to possibility and probability. We provide a list of possible diagnoses and try to narrow down which is most probable. Whether to act on it depends on so many factors, not the least of which is weighing how comfortable we (you, me, and our patients) are with risk.

As we reached the fourth floor, I devised my grand finale.

Yes, I agree. We overdiagnose, and I sometimes doubt our motives. Are we doing all these tests because we want to help our patients as much as possible? Or is it because we're uncomfortable with uncertainty? Perhaps we're doing more harm than good with some of these guidelines. Like attacking a fly with an axe.

Until we come up with a method that factors in every individual's risk tolerance, the system is what it is—a long, bumpy ride to the truth.

And we're all in the car together. We can get through it by communicating better. Clinically correlating is a team effort, shared by all of us. Since the advent of PACS, we see you less and less in our reading rooms, and our multidisciplinary dialogue has fallen by the way side. We need to make more time for nuance, for the gray zones in medicine. How might we make more time, while administrators and politicians are breathing down our necks with stopwatches and metrics?

And did I say any of this?  The elevator doors slid open. The primary care doctor waved bye and shot out of the elevator ahead of me before I could open my mouth to speak.  I finished my granola bar before I entered the morgue. The strong smell of formaldehyde hit me in the face. I opened the CT images of the deceased and our discussion of his illness began. Maybe, just maybe, we'd get one small step closer to the truth today.
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