

Reality First

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An 83-year-old woman is admitted to the medical floor with a diagnosis of pulmonary embolism seen on ventilation/perfusion scan. A common condition affecting more than 5 per 1000 individuals over the age of 75 years, pulmonary embolism is a garden-variety medical diagnosis that even senior medical students are expected to readily recognize. Accordingly, the nighttime admitting team had already started anticoagulation for the patient after reviewing the initial imaging report, adhering to the standard treatment protocol. However, this patient would come to tell a different story.

Mrs James is a pleasant elderly woman who described to us an active life. Despite her age, she shops at a supermarket and routinely walks multiple blocks without any difficulty. She reported that she has not noticed any decline in physical activity, chest pain, or shortness of breath. Given her asymptomatic presentation, the initial suspicion was a chronic embolus incidentally seen on imaging. These chronic clots often elevate pulmonary vascular pressure over time, translating into structural changes of the heart itself. However, findings from the physical examination were entirely normal with no findings suggesting this disease process.

Perplexed, we asked her outpatient pulmonologist for an evaluation, who concurred with the initial imaging despite the clinical picture and recommended lifelong anticoagulation. To resolve this ambiguity, we followed up with the “gold standard” imaging modality, a computed tomography scan of the chest with contrast. This showed no blood clot in the lungs.

As modern medicine advances, the number of imaging and laboratory tests ordered by medical professionals has increased accordingly. A total of 124 million unique diagnostic imaging tests totaling \$5.6 billion were ordered for 34 million Medicare beneficiaries in 2012, averaging almost 4 tests per person each year.¹ Prominent authors have written about the risks of overordering medical tests,² and studies have shown that affluent individuals who can afford added testing often end up overdiagnosed and overtreated.³ The epidemic of testing and easy access to laboratory and imaging studies have led to the phenomenon of the “iPatient” who serves as a stand-in for the actual patient lying in bed.⁴

Bedside rounds, a discussion of the reasons for hospital admission with the accompanying physical examination done directly in the patient’s room, are disappearing. Only 19% of teaching attending physicians performed bedside rounds in a study, and the majority (67%) of resident physicians reported they preferred to discuss patients in the privacy of the hallway or the conference room.⁵ When rounds are conducted away from the patient, the emphasis is often placed on laboratory and imaging data, rather than on the physical examination and the description of the symptoms and condition given by the patient. In a study designed to assess adverse medical events related to the physical examination, 63% of reviewed cases identified the problems resulted from a failure to perform the physical examination.⁶ With modern reliance on “objective” laboratory and radiologic testing, patients are increasingly reduced to a collection of numbers and reports.

During a 2-week rotation with a seasoned attending physician who always rounded at the bedside, our team of learners came up with the motto “reality first.” On an annual visit to the cardiologist, Mrs James had received a routine echocardiogram that showed a mildly elevated pulmonary capillary wedge pressure. The follow-up study to evaluate this apparent abnormality (the ventilation/perfusion scan) resulted in the finding of a pulmonary embolism, which triggered a transfer to the emergency department and inpatient admission. However, despite all this testing, Mrs James remained asymptomatic with no signs of right-sided heart failure seen upon physical examination. In the face of clinical uncertainty, we chose to trust the octogenarian, who we were racing up and down the stairs on the day of her discharge, over the specialist, who chose to favor the radiologic findings. This produced a vastly different story with significant consequences. In that second scenario, we would condemn a woman with remarkable functional status for her age to long-term anticoagulation, labeled forever with a diagnosis that she never had. Which was the reality, and which was the unreality?

Clearly, laboratory and imaging tests are useful—the final diagnosis for this case was made using a computed tomography scan. However, the chain of events that followed from an echocardiogram ordered with no clinical indication and simply as a “routine examination” highlights the cascade of testing in the modern medical system and the costly errors that may

result. On the morning of her discharge after I explained to Mrs James that she would not be needing blood thinners anymore, she grasped my hands and said, “That was the best news I’ve heard all year—you’re the best!” Reflecting on the wild goose chase she had had over the prior week for a heart abnormality and a blood clot that did not exist, I could not help but tell her, a bit facetiously, “I think you better stay away from doctors in the future.”

References

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