MISREAD AND MISSED OPPORTUNITIES

By Melissa DeMayo, *CRICO*

DESCRIPTION

A 55-year-old man's lung cancer diagnosis was delayed by five years after an initial X-ray was misread and no follow-up study was performed.

KEY LESSONS

- Misinterpretation of diagnostic studies is the primary contributing factor in Radiology medical professional liability (malpractice) claims
- Failure or delay in performing indicated diagnostic studies is a key cause of missed cancer diagnoses
- A persistent patient complaint signals a need to expand the diagnostic focus

CLINICAL SEQUENCE

A 55-year-old male with a significant pack/year history of smoking presented to primary care with complaints of an intractable, non-productive cough and wheezing for the prior six weeks. The PCP examined the patient, and a plan was made that included chest X-ray and smoking cessation. An X-ray was completed that day, and the radiology report stated,"lung fields clear, no acute pulmonary disease."

Two months later, the patient returned to his PCP with complaints of persistent cough, now with nasal congestion, sore throat, and frontal sinus pressure for the prior 10 days. The patient had continued smoking. At this visit, the PCP diagnosed reactive airway disease, prescribed an inhaler, and again advised the patient to quit smoking.

Over the next three years, while he continued to follow up with the PCP, the patient's cough persisted and he continued to smoke. No additional radiology studies were ordered. He was eventually diagnosed with chronic obstructive pulmonary disease.

When the patient developed leg pain severe enough to warrant evaluation by a rheumatologist, radiologic studies were ordered. A chest CT revealed a right upper lobe mass suspicious for malignancy invading the mediastinum. The Radiology report included a notation that the mass had increased in size from the X-ray five years earlier.Subsequent MRI of the brain revealed a lesion, and the patient received a diagnosis of stage IV lung cancer.

ALLEGATION

The patient sued the initial radiologist, alleging delayed diagnosis of lung cancer.

Contributing Factors

1. Misinterpretation of diagnostic studies when initial chest X-ray was misread
2. Failure to order a diagnostic test when a CT scan was indicated
3. Failure to respond to patient concerns over multiple visits for complaints of a persistent cough

DISPOSITION

This case was settled in excess of $1 million.

DISCUSSION POINTS

Misinterpretation of diagnostic studies

Misinterpretation of diagnostic studies is the top contributing factor (nearly 87%) in malpractice claims for which Radiology is identified as the primary responsible service. The majority of such cases involve a delayed and missed diagnoses of cancer or a fracture.[1]

Peer learning is an emerging practice increasingly familiar to the field of radiology as a means to counteract this trend and reduce the incidence of radiologic diagnostic error. Through keen focus on error reporting, shared learning, and mutual instruction, Radiology teams are developing improvement processes that are both instructive and non-punitive, leading to a reduction in error.[2]

Failure to respond to persistent patient complaints and failure to order a diagnostic test

The patient in this case chose not to name his PCP in his malpractice claim. However, it is worth noting that a misinterpretation of a diagnostic study is often compounded by a failure to heed an unresolved complaint, order an indicated diagnostic test or referral, or reconcile a patient's clinical symptoms with test results.[1]

These clinical judgment errors often include "anchor bias," i.e., a failure to develop systematic differential diagnoses, which can cause a provider to arrive at a premature diagnostic conclusion without considering and ruling out all

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other possibilities. Electronic record clinical decision support tools are one of the systems improvements suggested to mitigate risks of anchor bias.[3] *Additionally, clinicians might further refine clinical reasoning skills by developing habits of self-reflection.*

Examples of questions used for self-reflection during the diagnostic process include:

- What else could this be?
- What can't I afford to miss?
- Who else should I involve in this process?
- What doesn't fit the clinical picture? [4]

REFERENCES

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