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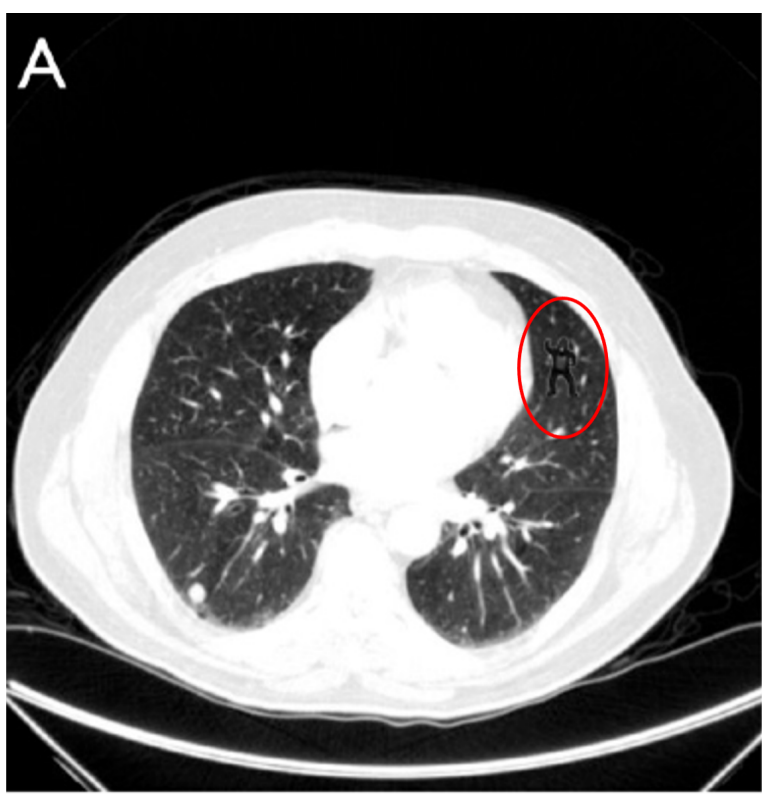
Make better decisions confidently

NEWSLETTER

In 1999, a landmark study took place involving what the researchers termed “sustained inattentional blindness”.[1] Before you read on, we suggest you view and follow the directions in this 90 second video recapping the study by Simons and Charbis.

Did you see *it*? If you didn’t, you’d certainly be in good company as the study found that roughly half of viewers who were actively trying to count passes missed the main event. But how does this tie into radiology?

Researchers Drew, Vo, and Wolfe applied a similar concept on a smaller scale in 2013. They asked radiologists to look for lung nodules on a series of five patient CT scans of the chest. In one of the CTs, they hid an ode to the 1999 study—a gorilla. A whopping 83% of radiologists missed the gorilla despite it being a) present near a lung nodule b) on multiple slices of the CT and c) at least 48x the size of the average lung nodule.[2]



Drew T, Võ ML, Wolfe JM. The invisible gorilla strikes again: sustained inattentional blindness in expert observers. *Psychol Sci*. 2013;24(9):1848-1853. doi:10.1177/0956797613479386

While that may be a daunting figure, this is actually a very well-known psychological phenomenon that occurs in everyone. Surely, we can all admit to a time of looking for our keys only to find they were right in front of our face all along, right?

But those are keys, not potential pathology hiding in your body that you’d want to know about. So, should patients and providers be worried about things being missed on medical imaging? Another study[3] came out last month from Wolfe, one of the original gorilla-in-a-lung researchers, looking once again at “normal blindness”.

In an interview[4] about the study he said that the crux of the matter is that the radiologists in the 2013 were primed to look for something other than an unusual anomaly, let alone an entire mammal. This put them in a mind set to only look for the white nodules on the CTs. In other words, it biased them. Wolfe says that situations like this “highlights the need for multiple pairs of eyes.”

At A4D, we know mistakes happen. Radiologists are human, after all. But the best way to combat errors is to know where they begin so you can work to avoid them. We are committed to quality and part of that means we continually analyze the work of our fellowship trained, sub-specialized radiologists through peer-to-peer review.

We also do our best to remove biases by never letting them know which side they are reading for. Knowing a patient is part of an auto accident and knowing the images were from a plaintiff lawyer may subconsciously suggest that a radiologist need to look for only acute findings, but that’s not always the case. Vice versa, knowing that a case is from a defense lawyer may predispose a radiologist to unintentionally view the circumstances in one way over another as well. Eliminating knowing which side they are reading for helps A4D’s fellowship trained radiologists stay impartial.

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Sources:

1. Simons DJ, Chabris CF. Gorillas in Our Midst: Sustained Inattentional Blindness for Dynamic Events. Perception. 1999;28(9):1059-1074. doi:10.1068/p281059 (https://ww2.authentic4d.com/e/756213/doi-10-1068-p281059/7jtcr2/334079362?h=Nc6bcfQqIp_itqeq9IqA6XTqDNBJ6VvuC7-Y3qTjQ34)

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3. Jeremy Wolfe et al., “Normal Blindness: When We Look But Fail to See.” Trends in Cognitive Sciences, July 21. DOI: https://ww2.authentic4d.com/e/756213/10-1016-j-tics-2022-06-006/7jtcr5/334079362?h=Nc6bcfQqIp_itqeq9IqA6XTqDNBJ6VvuC7-Y3qTjQ34

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