



We have been led to throw the CT baby out with the dose bathwater.

About dose fears

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“My main frustration is the fear of cancer from low dose radiation, even by radiologists.”

—John Cameron

OK, I know I have savvy readers, and that is why I’m continuing with this line of thought. How many of you know who John Cameron was? Hands? There, in the back, do you have your hand up? OK, a few but not nearly enough.

Dr. Cameron was a medical physicist par excellence; a founding member of the AAPM who conducted some real research that many of us rely on in our daily jobs. The man essentially thought up bone densitometry. His work at UW-Madison was amazing. An early paper on bone densitometry was the single most cited publication on the 25th anniversary of Investigative Radiology. And, he was fearful of something that more of us are now becoming aware of: the public fear of radiation at **ANY** dose.

Recent press from the AAPM has addressed this, and several of our organizations are also becoming more vocal about their support of what we do and the lengths we go to minimize unnecessary radiation exposure while maintaining respect for useful exposures at perhaps unmeasurable levels of risk. I know you want some humor—enough of this seriousness!

OK, here’s my little angle.

We used to make diagnoses with CT scans. I could see things on them. Honestly, I could. Then, along came dose paranoia. And with the rapidly falling dose came the inexorable excuses: “No gross abnormality on these low mAs images. MR is recommended.” “No significant shift or large mass.” You know what I mean. We are back to feeling heads for lumps with some of these CT studies. We have been led to throw the CT baby out with the dose bathwater. There are times (excuse my Neanderthal tendencies, please) when all I want is a good CT. Please, God, let me have just 3 slices through that head with enough technique to see it.

I get the radiation-is-bad thing. This is different. Our problem is the failure to establish a relative risk for doses that are **diminishingly** low versus **spectacularly** low. Our fear may result in patients not getting great imaging and our inability to make diagnoses.

I don’t have an answer, but I will leave you with this: If the large community of medical physicists (who know way more about this than I do, and likely way more than you do) think we’ve overstated it, my gut feeling is we’ve done exactly that.

Back next month with more raving. Mahalo.

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