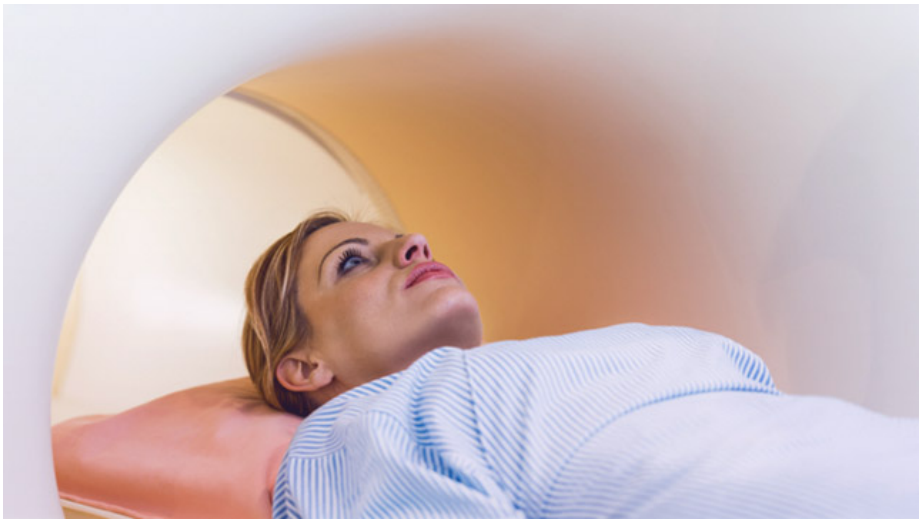
HealthlineNews

Is It Safe to Undergo Multiple MRI Exams?

Written by Chuck Green | Published on August 4, 2015

Expert says FDA announcement on contrast agents used in some MRIs raises concerns about extensive use of the common medical test.



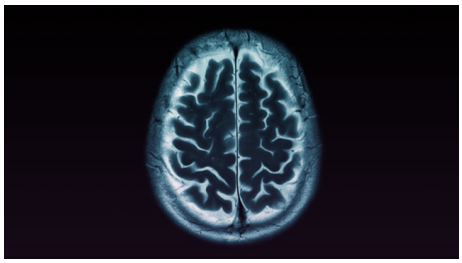
The findings, at the very least, are a cause for concern.

That's what Dr. Emanuel Kanal says about the Food and Drug Administration's safety announcement last week on the risk of brain deposits from repeated use of certain contrast agents used during MRI tests.

The director of magnetic resonance services and professor of radiology and neuroradiology at the University of Pittsburgh Medical Center said it's difficult to know the significance of the recent research, but he noted there are "several things [that] are perturbing."

First, scientists didn't expect to find a substance called gadolinium deposited in MRI patients' brains.

In addition, he said, this effect isn't seen equally among the various FDA-approved gadolinium-based contrast agents (GBCA) used in MRIs. "That's the elephant in the room," Kanal told Healthline.



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Concern Focuses on Long-Term Effects

MRIs help detect abnormalities in organs, blood vessels, and other tissues. GBCAs are utilized to enhance the visibility of internal images. The issue revolves around intracranial accumulation of the heavy metal gadolinium following repeated use of GBCAs in MRIs.

A study published in Radiology reported that deposits of gadolinium remained in the brains of some patients who underwent four or more contrast MRI scans. These deposits usually appeared long after the final MRI.

This issue affects only GBCAs. It doesn't apply to other types of scanning agents used for other imaging procedures like iodine-based or radioisotope agents.

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Did the FDA Do Its Job?

As of now, FDA officials indicated the agency, including its National Center for Toxicological Research, will study this possible risk further.

Did the FDA drop the ball in approving these MRI agents?

"No. That's such an extreme comment," said Kanal. "The FDA can't possibly anticipate every single possible safety concern for every possible drug or device. Safety can't be proved. It can only be disproved."

Had the brain deposits been known prior to FDA approval, it's reasonable to expect the federal agency would have required more documentation from the manufacturers of those agents, Kanal noted.

The intent would've been to show the accumulation doesn't present a safety issue, he said.

> *The FDA can't possibly anticipate every single possible safety concern for*

Nevertheless, Kanal called out the FDA's announcement for failing, as he sees it, "to even minimally scratch the surface" in terms of advising radiologists

> *every possible drug or device.*
>
> Dr. Emanuel Kanal, University of Pittsburgh Medical Center

of the differences among agents.

“It's a significant oversight,” Kanal said.

He believes it does a disservice to the radiology community and should be “rapidly corrected,” a message he's relayed to federal officials.

Meanwhile, Kanal said, the University of Pittsburgh Medical Center is “exceptionally on top of this issue — probably more so than just about any institution in the country. We're reviewing the available data daily for new information that might help guide us as to how to best proceed from here.”

For now, based on the need for additional information, the FDA is not requiring manufacturers to make changes to the labels of GBCA products.

“Without data to document the presence of a clear safety issue, I understand why they haven't yet made labeling changes to the individual GBCA at this point,” Kanal said.

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Limited Use of Tests Recommended

With all this, one may wonder if undergoing an MRI is worth the risk.

“Each doctor, and potentially, each patient, is going to have to ask that question themselves,” Kanal said.

In the meantime, the FDA has advised healthcare professionals to limit GBCA use to clinical circumstances where the additional information provided by the contrast is necessary.

At this stage, radiologists must step up and carefully review and approve every single request for a contrast enhanced MRI, said Kanal.

"They're the ones who have the patient's back," he said.

They're educated specifically in the safety of these agents, the differences among them, when they should and shouldn't be used and at what dosage they should be administered, he noted.

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