Gadolinium-based contrast agents alone don't cause patients to develop nephrogenic systemic fibrosis

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Even at very high doses, gadolinium-based contrast agents alone are not sufficient to cause nephrogenic systemic fibrosis (NSF) in patients with kidney problems, according to a study performed at the Mayo Clinic Florida, Jacksonville, FL. NSF is a rare and serious syndrome that leads to fibrosis of the skin, joints and even internal organs. Some research indicates NSF is caused by gadolinium-based contrast agents that are commonly used today during MR procedures.

The study examined the records of 61 patients. "Our patients had been given high doses—from two to ten times the usual MRI dose. These high doses were used because the patients were undergoing interventional procedures and the procedures were done before there were any reports linking gadolinium to NSF," said Mellena D. Bridges, MD, lead author of the study. "Fortunately, one of these patients, a 58-year-old diabetic man with end-stage kidney disease and significant blood vessel blockages, developed NSF. Gadolinium seems to be necessary to trigger NSF, but it doesn't seem to be enough to cause the disease, even at very high doses," said Dr. Bridges.

This study appears in the June issue of the *American Journal of Roentgenology*.

Source: American Roentgen Ray Society