Gadolinium Advisory Statement – ARI 2018

Gadolinium contrast material has been found to be associated with the condition Nonspecific Systemic Fibrosis (NSF). The following recommendations are suggested by Akron Radiology Inc. based on the American College of Radiology Guidelines:

Group II Agents (Gadavist, Multihance, Dotarem or Prohance)

As of 2017, when utilizing group II agents, based on the most recent scientific and clinical evidence the ACR Committee on Drugs and Contrast Media considers the risk of NSF among patients exposed to standard or lower than standard doses of group II GBCAs low or possibly nonexistent. Therefore, assessment of renal function with a questionnaire or laboratory testing is optional prior to intravenous administration. As in all instances, group II gadolinium agents should only be administered if they are deemed necessary by the supervising radiologist, and the lowest dose needed for diagnosis should be used as deemed necessary by the supervising radiologist.1

While the ACR Committee also states that the risk for NSF is extremely low regardless of renal function or dialysis status, in patients with end-stage renal failure on dialysis, we recommend avoiding the use of any gadolinium agent unless medically necessary. If gadolinium is given, then the agent should be administered just prior to dialysis.

Group I or III Agents (Magnevist, Optimark, Omniscan or Eovist)

When Group I or III agents MUST be used, patients over age 60 OR with risk factors for renal disease (i.e., dialysis, renal transplant, single kidney, kidney surgery, kidney cancer, diabetes or hypertension requiring medical therapy) are required to have their serum creatinine level measured before the contrast-enhanced MR examination.

GFR > 60: Acceptable to use Group I or III gadolinium agent.
GFR > 30: Acceptable to use Group I or III gadolinium agent if clinically necessary.
GFR <30: The usage of Group I or III gadolinium agent is considered contraindicated.

All deviations from the accepted guidelines are to be approved by the attending Radiologist.

References:
1. ACR Manual on Contrast Media. Version 10.3 May 2017
2. Incidence of Nephrogenic Systemic Fibrosis after Adoption of Restrictive Gadolinium-based
3. Contrast Agent Guidelines. Radiology July 2011 260:105-111.