

Awareness of Gadolinium Article CUREUS Toxicity Among Nonradiologists in Saudi Arabia	
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<p>Abstract: Introduction and aim Gadolinium toxicity has been accompanied by side effects among patients scanned with MRI, especially patients with chronic renal insufficiency. The toxicity, pharmacokinetics, and pharmacodynamics of gadolinium-based contrast agents intact blood-brain barriers accumulate in the brain. This study aimed to estimate the awareness about the side effects of gadolinium-enhanced MRI scans among Saudi non-radiologists to improve and raise the level of awareness of all physicians about the side effects of gadolinium-enhanced MRI studies among patients. This improvement will be due to our clarification of the most important issues related to gadolinium contrast in MRI, by illustrating the uses and the major side effects of this contrast. Additionally, we want to find a method that will help with raising awareness of gadolinium toxicity and alert the stakeholders and the head of radiology departments about the need of creating and implementing new official regulations to minimize the abuse of enhanced MRI studies. Materials and methods This is a cross-sectional study conducted among non-radiological doctors in Saudi Arabia. A questionnaire based on a literature review was developed and distributed among non-radiological doctors through an online platform. The questionnaire included basic demographic data and a behavioral and awareness assessment about gadolinium. All statistical analyses were carried out using Statistical Package for the Social Sciences (SPSS) IBM Corp. Released 2019. IBM SPSS Statistics for Windows, Version 26.0. Armonk, NY: IBM Corp. Results 460 non-radiological doctors contributed, 65% males vs. 35% females. The most commonly known side effect of gadolinium was acute pancreatitis (92.8%), followed by encephalopathy (90%) and arrhythmias (88.9%). Awareness of gadolinium toxicity among the non-radiological doctors was poor in 74.6%, 20.9% were moderate, and only 4.6% were classified into a good awareness level. The factor associated with an increased level of awareness was being an internal medicine doctor ($p=0.006$). Conclusion The awareness level of non-radiological doctors about gadolinium toxicity was suboptimal. The knowledge of internal medicine physicians was better, but the other specialties need more education. As most of the physicians were not exposed to patients' adverse reactions, this could be one of the reasons why they have a lack of knowledge about the subject. On the other hand, appropriate patient screening and sufficient prophylactic measures can prevent adverse events. Therefore, in knowledge, understanding, and practice, it is important to come up with the most effective response to any gadolinium contrast adverse events.</p>	