

Survey of Practicing Radiologists on the Use of Premedication Prior to Intravenous Iodinated Contrast Medium Administration

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Background

- Premedication regimens are widely used prior to administration of contrast, including iodinated contrast media (ICM) in patients with a history of acute allergic-like reactions to contrast media.

Purpose: To determine whether updated guidance by the American College of Radiology (ACR) in 2017 advocating use of IV premedication in ED patients and inpatients with reported iodinated contrast allergy was associated with a change in clinical practice.

Methods

- An anonymous survey was distributed via e-mail to practicing radiologist members of the ACR questioning use of premedication for two clinical vignettes: an indicated routine (within 24 hours) inpatient contrast enhanced CT (CE-CT) and an indicated urgent ED (within 6 hours) contrast-enhanced CT. In both scenarios, the patient had a prior moderate allergic-like reaction to ICM.
- Clinical management was evaluated. Data were compared to historical controls from 2009.
- Respondents' preferences regarding premedication prior to ICM administration in patients with allergies to substances other than ICM was also evaluated.

Conclusion

- Although use of rapid IV premedication has increased following updated ACR guidelines, deviation from those guidelines remains common.
- In general, when ACR guidelines were not followed, it was in a risk-averse direction.
- Radiologists with more than 10 years of experience were more likely to inappropriately recommend corticosteroid premedication for ICM in patients with a history of prior severe allergic-like reaction to gadolinium. This highlights importance of continued education.

Stay tuned for our full-manuscript which is accepted for publication at the Journal of the American College of Radiology (JACR)!

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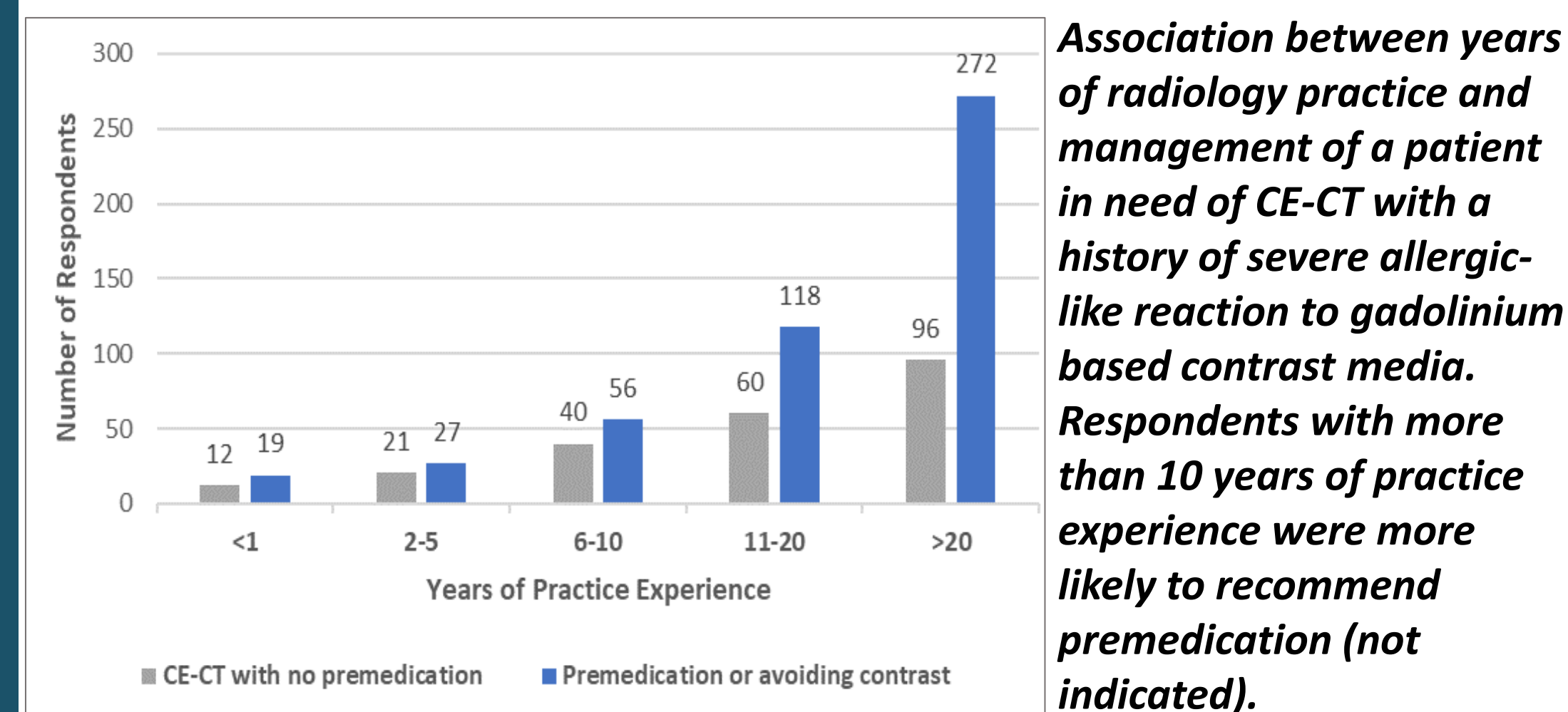
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Results

Premedication practices and number of oral and IV steroid doses

Clinical Scenario	Noncontrast CT	CE-CT without Premedication	CE-CT with Premedication	# of Doses	Corticosteroid	
					Oral	IV
Inpatient	200 (28%)	6 (1%)	518 (72%)	1	9 (2%)	20 (25%)
				2	165 (38%)	41 (52%)
				3	256 (58%)	18 (23%)
				>3	6 (1%)	0
				No response	3 (1%)	0
Emergency department	217 (30%)	20 (3%)	487 (67%)	1	15 (28%)	185 (43%)
				2	32 (59%)	216 (50%)
				3	4 (7%)	9 (2%)
				>3	0	0
				No response	0	18 (4%)
				Could not recall	3 (6%)	5 (1%)

- Rapid IV steroid premedication was more commonly used in 2020 than in 2009 (60% vs. 29%, $P < .001$, OR, 3.65, 95% CI, 2.12 – 6.26).



- 93% of respondents indicated that the ACR Manual on Contrast Media was a major determinant of their practice but only 32% practiced in accordance with ACR guidelines.