

Premedication Policy for Non-Vascular Administration of Contrast in Patients with Contrast Allergy

Patients with a history of severe “allergy” to a class of contrast agents (iodinated or gadolinium-based contrast agents) could develop a severe repeat reaction even with non-vascular administration of small amounts of that class of contrast. While case reports exist for patients experiencing “allergies” with non-vascular administration of contrast media, most papers have shown risk of repeat reaction to be low with non-vascular administration (even without premedication). Given this, the following approach is suggested:

- Use alternate class of contrast when feasible (example- barium).
- Gather information on what contrast agent caused the allergic-like reaction. Use a different agent whenever feasible. For some non-vascular injections, older high osmolar iodinated contrast agents can be substituted as these are rarely given IV anymore (example- gastrogaffin, conray, etc) to reduce risk of repeat exposure to same contrast agent.
- For iodinated contrast “allergy”, off-label use of gadolinium-based agents can also be pursued depending on procedure.

Guidance on need for premedication (steroid/antihistamine) if being exposed to same class of contrast media that caused allergic-like reaction is detailed below.

Premedication guidelines for previous reaction (by severity) to intravascular contrast and in need for non-vascular exposure of same contrast type			
<u>Reaction Severity</u>	<i>Mild</i> reaction (ex. Hives)	<i>Moderate</i> reaction (ex. Bronchospasm needing treatment)	<i>Severe</i> reaction (i.e.- anaphylactoid)
<u>Premedication Recc.</u>	None	Not routinely needed unless strong patient/clinician preference	Avoid giving contrast. If must be given, use standard premedication regimen* and be prepared to manage repeat reaction

* Unless in the opinion of the responsible health care professional and supervising radiologist, the potential benefits of not performing premedication outweigh the risks (i.e. emergency situation and cannot wait for urgent procedure). In these instances, clinical provider should accompany the patient to radiology suite (whenever feasible) to aid in management if a repeat reaction occurs. Attempt to find what contrast agent caused the event and use a different agent.

References:

- Davis PL. Anaphylactoid reactions to the nonvascular administration of water-soluble iodinated contrast media. AJR 2015; 204:1140-1145.
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- Mohapatra A, Hyun G, Semins MJ. Trends in the usage of contrast allergy prophylaxis for endourologic procedures. Urology 2019; 131:53-56.
- Joseph JP, et al. Outcomes in patients with known contrast allergy undergoing contrast-enhanced endourologic procedures: a retrospective cohort study. Journal of Endourology 2021; 35:1857-1862.