

# Incidence and Risk Assessment of Contrast Induced Nephropathy in Patients Undergoing Contrast Enhanced Computed Tomography

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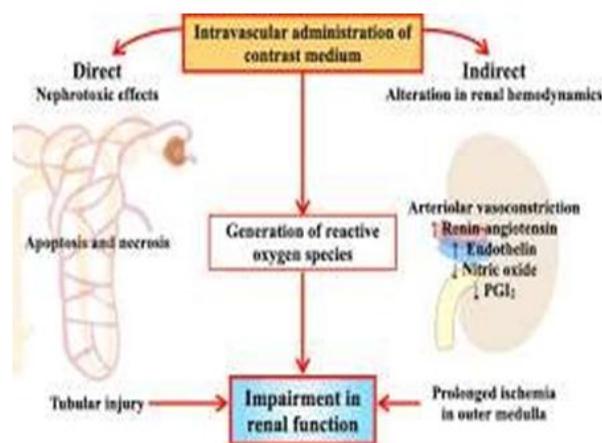
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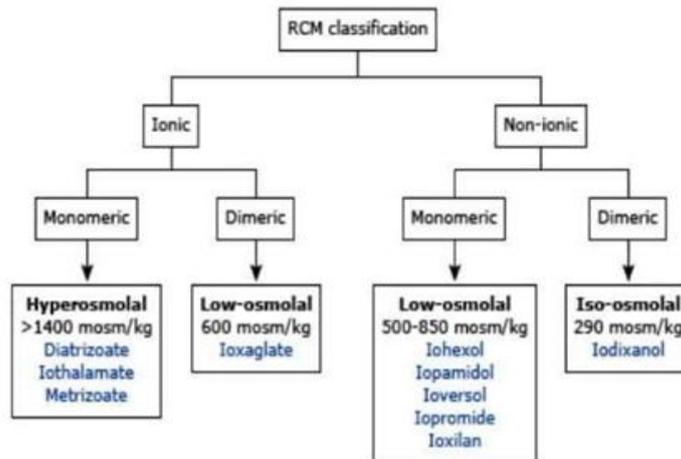
## I. Background:

- Contrast induced nephropathy is a major adverse event following use of non ionic and also ionic iodinated contrast medium. It is defined as an absolute ( $>0.3\text{mg/dl}$ ) or relative ( $>25\%$ ) rise in eGFR and serum creatinine from baseline within 48 to 72 hours



Pathophysiology of CIN

RADIOCONTRASTMEDIUM



## ADVERSE REACTIONS OF RCM:

**MILD**

- Nausea, vomiting Altered taste, Sweating, Cough, Itching, Rash, hives Warmth (heat) ,Pallor, Nasal stuffiness Headache Flushing Swelling eyes, face Dizziness Chills Anxiety Shaking

**MODERATE**

- Tachycardia/bradycardia ,Hypotension Bronchospasm, wheezing, Hypertension,Dyspnea Laryngeal edema ,Pronounced cutaneous reaction, Pulmonary edema.

**SEVERE**

- Hypersensitivity and anaphylactoid reactions, Laryngeal edema, Profound hypotension Unresponsiveness (severe or progressive) Convulsions Cardiopulmonary arrest , arrhythmias

**Signs and symptoms** — immediate hypersensitivity reactions to RCM develop within one hour, and usually within five minutes of RCM administration. Signs and symptoms include :

- Flushing
- Pruritus
- Urticaria
- Angioedema
- Bronchospasm and wheezing
- Laryngeal edema and stridor
- Hypotension and rarely shock
- Loss of consciousness

## **II. Materials And Methods:**

100 patients between the age group of 20 to 60 years were taken with normal renal function undergoing computed tomography scan with non ionic contrast. Patients were evaluated for 6 months

## **III. Result:**

► Out of 100 cases 2(2%) showed increased creatinine value after CECT studies. Study showed direct relationship between using contrast media in CECT study and increase risk for developing contrast induced nephropathy.

## **IV. Conclusion:**

► CIN is an important concern for radiologists. Intrinsic risk to iodinated contrast media should be identified in patients at risk of developing CIN and those requiring hospital care .

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