

## **Title : Role of N-acetylcysteine in prevention of contrast-induced nephropathy among inpatients undergoing coronary angiogram and percutaneous intervention**

### **Abstract**

#### **Background:**

Nephropathy induced by contrast media used in angiographic procedure is a very common complication and found third most common cause of hospital-acquired acute renal injury. There is no gold standard drug therapy for the management of this condition.

**Aims and Objectives:** The present study is designed to evaluate the preventive role of N-acetylcysteine (NAC) in contrast-induced nephropathy (CIN) in susceptible patients receiving intravascular contrast media for coronary angiogram (CAG) and percutaneous transluminal coronary angioplasty (PTCA).

**Materials and Methods:** The patients scheduled for elective CAG or PTCA, who were induced with radiocontrast media such as Omnipaque (140–350 ml) and Visipaque (320 mg/ml) were included in the study. The baseline data of serum creatinine (SCR) were measured during 0 h, i.e., prior catheterization referred to as baseline and 24 h, 48 h, and 72 h after contrast administration. The above readings were noted for both the groups where one received NAC plus hydration (1200 mg, orally, twice a day for 48 h) and other group received hydration therapy alone.

**Results:** In the study, among the total (326) patients, 149 were treated only with hydration therapy and the mean of SCR levels of these patients before the procedure, that is, at 0 h and after the procedure at 24 h, 48 h, and 72 h is found to be 1.5245, 1.4138, 1.7966, and 0.4899, respectively, and remaining 177 were treated with NAC plus hydration therapy and the mean of the SCR levels of these patients before the procedure, that is, at 0 h and after the procedure at 24 h, 48 h, and 72 h is found to be 1.1616, 1.1546, 0.3586, and 0.01708, respectively.

**Conclusion:** Based on the above results, it has been proven that NAC administration through oral route has prevented the CIN after cardiovascular procedures.

**Key Words:** Serum Creatinine; Renal Injury; Contrast-induced Nephropathy

**For more details :** <https://www.bibliomed.org/mnsfulltext/28/28-1563982754.pdf?1636747916>