Prevention Of Contrast Induced Nephropathy In Patients Undergoing Coronarography With Ascorbic Acid

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Background: Contrast induced nephropathy (CIN) is an increasing problem in cardiology invasive imaging, limited by the absence of treatment and few prevention methods. Anti oxidant benefits of ascorbic acid have been reported by small series but evidence remains poor.

Aim: To evaluate the effect of ascorbic acid administration in CIN occurrence in patients undergoing coronaryography.

Methods: Patients undergoing coronaryography between March and November 2010 were prospectively and blindly randomized to control group receiving a standard CIN prevention protocol including saline hydration and ascorbic acid group receiving saline hydration with ascorbic acid (3g 2hours before the procedure then 2g the day after and 29 ml. CIN occurred in 31 15.3% patients. It was significantly lower in ascorbic acid group (10.3% vs 21.1%, p=0.03).

Conclusion: Ascorbic acid showed to reduce CIN incidence in patients undergoing coronaryography compared with saline hydration alone.

Effect Of Statins In Contrast-induced Nephropathy After Coronary Angiography

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Background: Contrast-induced nephropathy (CIN) is a frequent complication after coronary angiography. In the exclusion of saline hydration, the effectiveness of other means of prevention remains unclear, and almost poor. Thanks to its pleotropic effects, statins have been used in CIN prevention, but data remains controversial.

Objective: To evaluate the benefit of statins in the prevention of CIN after coronary angiography.

Methods: We used the database of a randomized controlled trial conducted in the Cardiology B department of Monastir’s Hospital during the period March to November 2010 to study the effectiveness of ascorbic acid in the prevention of CIN.

Results: The study met the non-inferiority endpoint and also demonstrated superiority of the DESSyne stent as compared to control for in-stent LLL (0.11±0.32 vs. 0.63±0.43, p<0.001). Clinical results through 2 years trend lower for the DESSyne stent (4.3% vs. 9.0%, p<0.03).

Conclusion: In our study, treatment with statins led to a trend to reduce CIN incidence. The small sample of the population couldn’t allow stronger conclusion. Statins seem to be promising but larger trials are needed.