

JOINT EVENT ON
24TH WORLD CARDIOLOGY CONFERENCE
and
25TH ANNUAL CARDIOLOGISTS CONFERENCE
September 17-18, 2018 Hong Kong

Efficacy of nicorandil in the prevention of contrast-induced nephropathy among patients with chronic kidney disease undergoing coronary angiography: A meta-analysis of randomized controlled trials

Carina Dalay-Dizon, Eliezer James Aguila, Anthony Gerodias and Andrea Marie Reyes
St. Luke's Medical Center, Philippines

Contrast induced nephropathy (CIN) is a reversible form of acute kidney injury that occurs soon after administration of contrast media. Current accepted methods for prevention of CIN include intravenous (IV) hydration, administration of oral n-acetylcysteine, and use of atorvastatin. Nicorandil, a novel anti-anginal drug has been studied to have a beneficial effect as well in preventing CIN. This paper aims to determine the efficacy of nicorandil in the preventing the incidence of contrast induced nephropathy in patients who will undergo coronary angiography. Search for randomized controlled trials was done, evaluating the efficacy of nicorandil in preventing contrast induced nephropathy in patients undergoing coronary angiography. Articles were critically appraised for inclusion. Pooled analysis revealed a Chi2 value of 4.32, dF=3 (P=0.21), I2 of 31%. Computed relative risk for incidence of CIN following Nicorandil administrations was 38% (CI: 0.19, 0.71). Administration of Nicorandil showed absolute risk reduction in incidence of CIN by 8% as compared to IV hydration seen in the Forest plot with a number needed to treat of 12. It showed a trend favoring nicorandil for the prevention of contrast induced nephropathy. The studies also showed that nicorandil together with IV hydration significantly caused reduction in cystatin C levels and change from baseline eGFR as compared with standard intravenous hydration.

dea.reyes@gmail.com