

Renal Function Should be Considered in Determining Superiority of Drug-Eluting Stents over Bare-Metal Stents in Patients with Acute Coronary Syndrome

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A recently published article by Lai et al.¹ in *Acta Cardiologica Sinica* evaluated the outcome of patients with acute coronary syndrome (ACS) who were treated with a bare metal stent (BMS) or a drug-eluting stent (DES). Based on Taiwan's ACS registry, after adjusting for potential confounders including age, Killip class, diabetes, heart failure, and ACS type, the authors concluded that implantation of DES compared with BMS reduced 1-year all-cause mortality [adjusted hazard ratio, (HR) 1.85; 95% confidence interval (CI), 1.08-3.18; $p = 0.03$]. However, the results of this study are inconsistent with a systemic review in the Cochrane database,² which showed there was no significant difference in the rates of death or acute myocardial infarction between patients who received a DES or BMS.

More than 30% of the patients in the Taiwan ACS registry have chronic kidney disease. Kidney dysfunction has been reported to have a significant impact on the composite outcome of death, non-fatal myocardial infarction, and stroke (HR, 2.39; 95% CI, 1.82-3.15; $p < 0.01$).³ However, Lai et al. did not compare the baseline renal function between two groups. In addition, Lai et al. had reported a 3-fold higher rate of acute kidney injury (AKI) after coronary intervention in patients who re-

ceived a BMS as opposed to a DES (2.27% vs. 0.62%, $p = 0.007$) which also affects patient mortality after ACS. Therefore, we suggest that the 1-year survival benefit of DES should be adjusted to the baseline renal function and AKI in the current study.

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Received: February 4, 2015 Accepted: May 4, 2015

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