Objective

Existing data on the benefits of multivessel percutaneous coronary intervention (PCI) versus culprit lesion PCI during acute ST-segment elevation myocardial infarction (STEMI) are conflicting. We examined the outcomes between STEMI patients with multivessel disease who underwent multi-lesion PCI (M-PCI) or single-lesion PCI (S-PCI).

Methods

AMIS Plus (Acute Myocardial Infarction in Switzerland) registry data were used. Patients admitted between 2005 and 2011 with a definite diagnosis of STEMI (clinical symptoms, ECG and/or elevated troponin levels ... culprit vessels or follow-up data on the patients following discharge. • The effect of experience could not be assessed.

Study limitations

• STEMI patients with multivessel disease who underwent M-PCI were mostly high-risk patients and sicker than those who underwent S-PCI only. • Crude in-hospital mortality and MACCE were higher in patients who underwent M-PCI . • Independent predictors for in-hospital mortality were age, comorbidities, resuscitation prior admission and Killip class>2. • However, after multivariable adjustment, M-PCI was not independently associated with worse in-hospital mortality. • Large-scale prospective, randomized trials are needed to guide the appropriateness of M-PCI during the course of STEMI.

Conclusions

There are no conflicts of interest