Reviewer's report

Title: Intracoronary epinephrine in the treatment of refractory no-reflow after primary percutaneous coronary intervention: A retrospective study

Version: 2  Date: 7 December 2014

Reviewer: Nicola Cosentino

Reviewer's report:

Comments:
In this study, the authors evaluated the long-term safety and efficacy of intracoronary epinephrine in reversing refractory no-reflow during primary percutaneous coronary intervention. 248 consecutive patients with acute myocardial infarction were retrospectively retrieved, but only 12 patients received intracoronary epinephrine to reverse refractory no-reflow during primary PCI were included the study. No-reflow was successfully reversed with complete restoration of TIMI 3 flow in 9 of 12 patients (75%). Moreover, epinephrine therapy was well tolerated without serious adverse hemodynamic or chronotropic effects, thus the authors concluded that intracoronary epinephrine may become an effective alternative in patients suffering refractory no-reflow following primary PCI.

It is an interesting manuscript, focusing on an important theme, such as the treatment of microvascular obstruction in the setting of primary PCI. Of interest, it is also the 4-year clinical follow-up performed by the authors. Data are well presented.

Some minor issues should be addressed:
- Please include data on left ventricular remodelling at echocardiographic evaluation at follow-up;
- Please include data on in-hospital major adverse event (mechanical ventilation; heart failure, ventricular or atrial arrhythmias, acute kidney injury);
- Please address another limitation: the lack of cardiac MRI, which is the most accurate method for MVO evaluation. If possible, include also some MRI data;
- Please include a figure showing the main finding of the study.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

I declare that I have no competing interests.