Reviewer's report

Title: In-Hospital complications after invasive strategy for the management of Non STEMI: Women fare as well as men.

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Reviewer: Shyam Poludasu

Reviewer's report:

The authors of this paper attempted to evaluate the in-hospital differences between men and women with NSTEMI undergoing PCI. The major limitations of this study are the small sample size (especially women), in-hospital follow up only and the statistical analysis. The complication rate in this study is high. Multiple large studies and databases have shown that women are at higher risk for bleeding after PCI and it is possible that the small sample size in this study might have masked the significant bleeding differences between the genders in this study. Otherwise, this paper is well written and all the pertinent references were well quoted.

Major revisions:

1. As mentioned above, the small sample size (especially women, n=136) is a major limitation of the study.

2. Multiple studies (Replace 2, HORIZONS AMI) demonstrated that major bleeding complications are associated with increased mortality, and the higher mortality was evident during the long term follow up. Women have been shown to have higher bleeding complications irrespective of invasive strategy (REPLACE 2) or non-invasive strategy (Crusade registry which had patients undergoing invasive and non-invasive strategy) and it would be useful to obtain long-term follow up.

3. The conclusion “no evidence to deny invasive procedure in women in this setting” seems to be too strong. Retrospective studies with small sample size are usually hypothesis generating only and are not conclusive.

4. In methods, the anti-platelet and anticoagulation administered, and the target activated clotting time has to be explained in detail. Also the selection of patients for bare metal vs. drug eluting, glycoprotein vs. no glycoprotein IIb/IIIa inhibitors needs to be explained. Please mention if bivalirudin was used in these patients?

5. 26 to 30% complication rate after PCI is high in the modern era of PCI. Also 69 patients had hemorrhagic events, among which 47 were groin bleeds. Please explain if any protocol is followed for hemostasis at the femoral puncture site including closure devices.

6. In Table-6, p-values cannot be calculated using Chi-square or Fischer’s exact t-test. All the complications have to be adjusted for confounding variables and the adjusted p-value calculated either using multivariate analysis or propensity analysis has to be provided.
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'