Author's response to reviews

Title: Impact of Percutaneous Coronary Intervention on Biomarker Levels in Patients in the Subacute Phase Following Myocardial Infarction. The Occluded Artery Trial (OAT) Biomarker Ancillary Study.

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Author's response to reviews: see over
Dear Editor,
Please, find below our point-by-point response to the Reviewers’ remarks. According to your suggestion, we also reviewed the manuscript with respect to the quality of English.
The changes within the text are marked with red color.

Sincerely Yours
Mariusz Kruk
Dear Dr Miszalski-Jamka,

Thank you very much for your review and valuable remarks regarding OAT-Biomarker report. Below, please find our responses to your comments.

Reviewer's report

Title: Impact of Percutaneous Coronary Intervention on Biomarker Levels in Patients in the Subacute Phase Following Myocardial Infarction. The Occluded Artery Trial (OAT) Biomarker Ancillary Study.

Version: 3 Date: 23 May 2013
Reviewer: Karol Miszalski-Jamka

Reviewer's report:

The manuscript entitled „Impact of Percutaneous Coronary Intervention on Biomarker Levels in Patients in the Subacute Phase Following Myocardial Infarction. The Occluded Artery Trial (OAT) Biomarker Ancillary Study” sought to assess potential impact of opening of infarct related artery on the plasma levels of biomarkers related to LV remodeling, stress and fibrosis.

The study demonstrated that the plasma levels of biomarkers have changed significantly during one year follow-up after MI. However, opening of occluded infarct related artery vs optimal medical therapy alone had no significant effect on biomarkers level dynamics.

The study is interesting, original and important. The manuscript is well written.

A. Major compulsory revisions: none

B. Minor essential revisions:

1. Abstract, Methods/Results – please provide information about randomization and number of patients in intervention/control arms in this substudy. Reader unfamiliar with OAT trial should know from abstract that patients have been randomized to intervention or optimal medical therapy alone.

   MK: The requested information was provided.

2. Abstract, Results – age 60.8+/−8.8 years instead of age 60.8+/−8.8

3. Results - Data on left ventricular ejection fraction is provided at baseline only. Please report LV ejection fraction at follow-up.

   MK: Data on the ejection fraction in OAT were routinely collected in all patients only at baseline.

4. Table 1; Table 2 and Figure 2 – please report p-value to the nearest thousandth only

   MK: It was corrected.

5. Some abbreviations are not explained with first use (IRA, PCI, SD, MED)

   MK: It was corrected.

C. Discretionary revisions:

1. Apart from LVEF the determination of at least EDVI/ESVI or LVEDD/LVESD at baseline and at follow-up might be helpful in the assessment of the magnitude of LV remodeling process (if available WMSI and determination of LV sphericity index should also be reported). Please discuss briefly EF and LV remodeling parameters change from baseline to one-year, especially possible differences between two arms (PCI vs MED). The study population could be further divided
into two subgroups depending on the presence of significant LV remodeling and then biomarkers levels in these subgroups could be compared.

2. Some data are reported as means and standard deviations, some data are reported as medians and interquartile ranges. The authors should consider choosing one system (preferably medians and interquartile ranges in this study). It will provide much greater uniformity.

*Of 70 patients enrolled in OAT-Biomarker, 39 participated also in OAT-NUC substudy. For this reason, we had following baseline and one-year data: LV EF, LVEDV, LVEDSV, LV wall motion score. The other LV parameters requested by the Reviewer were not estimated. We analyzed the available LV variables along with biomarker data and found (literally) no significant correlations between the biomarkers, or their dynamics and the LV parameters or their dynamics. We also analyzed the above data according to the study assignment (PCI vs MED), to no avail. Therefore, we did not include these data in the manuscript. The likely reason for lack of any significant associations between the biomarkers and the LV parameters is low number of patients.*

**Level of interest:** An article of outstanding merit and interest in its field  
**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
Dear Dr Barnes,
We appreciate your comments regarding OAT-Biomarker report. Below, please find our responses to your remarks.

**Reviewer's report**

**Title:** Impact of Percutaneous Coronary Intervention on Biomarker Levels in Patients in the Subacute Phase Following Myocardial Infarction. The Occluded Artery Trial (OAT) Biomarker Ancillary Study.

**Version:** 3  **Date:** 17 May 2013  
**Reviewer:** Geoffrey D Barnes

**Reviewer's report:**
This report is a substudy of the randomized OAT trial, which compared clinical outcomes in patients receiving mechanical reperfusion vs medical therapy between 24hrs and 28 days post-infarct. In this substudy, relevant biomarkers were monitored at baseline (prior to randomization) and at 1 year in 62 of the 2131 originally randomized patients. The main finding is that most of the biomarkers had a significant change over the 1 year follow up period, including a significant decline in NT-proBNP. These findings were consistent in both the reperfused and medically managed patients.

This is an interesting study, however limited by the small number of patients from only 12 of the original sites. The purpose and clinical question is well characterized and the methods of statistical analysis appear appropriate. The manuscript is well written and the authors appropriately address the strengths and limitations of the study.

**Minor Essential Revisions:**
- I recommend defining IRA before the abbreviation is used to describe the Infarct Related Artery. This occurs in the background of the abstract, once in the discussion's first paragraph and twice in the concluding paragraph.
  
  **MK: It was done**
- I recommend defining the terms PCI and MED in the 2nd figure as well.
  
  **MK: It was done**

**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