Author's response to reviews

Title: Predictors of positive response to cardiac resynchronization therapy

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Author's response to reviews: see over
Dear Madam,

Thank you for the opportunity to improve the quality of our manuscript. We thank the reviewers for their efforts. This documents contains a point-by-point answer to all the questions. In addition to that we have submitted a new version of the manuscript. Changes are depicted in red. We hope the answers will be satisfactory.

Sincerely yours,

Diana Rinkuniene

Reviewer 1

Major comments

--- Page 3 ---
GM: Conclusions in the abstract and at the end of the paper differ. The former is too short – what kind of etiology is meant? Would be better to make both variants the same (longer).

DR: We agree with your opinion and we wrote more detailed conclusions of the abstract.

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GM: The diagnosis of ischaemic cardiomyopathy is detalized. What about other etiologies? – they are not even listed.

DR: In our study patients were divides into two groups: ischemic cardiomyopathy and non – ischemic cardiomyopathy. The definition of ischemic cardiomyopathy is presented in the article, we did nor perform the analysis of the etiology of other cardiomyopathies.

GM: Were there CRT-D or CRT-P devices implanted? Not much relevant to the topic, but should be specified.

DR: In our study 36 patients (43.9%) underwent CRT-D implantation, the rest of patients underwent CRT-P implantation, we added this data into table 1.

GM: Was posterolateral LV electrode (lead) position achievable in all patients? To the same percentage in responders and non-responders? “Whenever possible” is not exact enough, because response or non-response may well depend on the LV lead position.
DR: LV lead was inserted into the posterolateral vein, which was selected according to anatomical characteristics of the vessels enter the appropriate electrode.

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**GM:** What about concordance of the lead position to the latest activation? Narrowest QRS complex or other criteria? Any guidance during the procedure electrocardiographic or echocardiographic?

DR: The optimal position of the LV lead was defined according to these criteria: LV lead impedance, threshold, no n. phrenicus stimulation and the narrowest obtained QRS complex.

**GM:** Second paragraph of the Results section: Improvement was not achieved in all pts, but this paragraph seemingly states so.

DR: Dear Professor, you are right – not all the patients had improved, but we showed the mean improvement of LV EF, LV size and volume and other parameters.

**GM:** Were there deaths in both responder and non-responder groups? Any difference?

DR: Two patients had died due to worsening HF, the others died due to non-cardiac reasons, so we decided not to use their data in the analysis of the response to CRT.

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**GM:** It is unlikely that in both responders and non-responders group QRS shortened to the same extent. QRS width deserves analysis and more detailed mentioning.

DR: We understand, that QRS duration demands more detailed analysis, but we did not perform it due to small number of the participants. We are planning a wider analysis of a bigger group of CRT patients in the future.

**GM:** --- Page 7 --- The next sentence is questionable: By no means, further studies are needed...

DR: Thank you for your remark, we have corrected the sentence.

**GM:** Minor essential revisions:1st , 2nd lines of the Results paragraph: two decimal digits in the fractional part of numbers seem too much for the percentage.

DR: Thank you for this observation, we have made corrections' in this field.

**Reviewer 2**

BK: Thank you for allowing me to review this manuscript. It is a nicely written paper.
Although the study cohort is small, the findings of the current study further solidify that of other studies that have already been available in the literature. The methodology, results interpretations, discussions and total number of tables, figures and references are optimal. The study results provide clinical relevance and implications.

DR: Dear Bharat Kantharia, thank you for you positive opinion about our manuscript.