

We thank the reviewers and editors for reviewing our article. Below we will respond to the comments of the reviewers. Changes in the text in accordance with the comments of reviewer #1 will be highlighted in yellow, reviewer #2 - in green.

Reviewer #1:

Specific Comments to Authors:

1. *The time point of blood sample acquisition needs to be unified, which it is in 7 days after PM placement in METHODS, but in 7th day upon discharge in Postoperative Follow-up Period.*

The time point of blood sampling was unified. Blood sampling was repeated on the 7th day after PM placement. A mistake in the “Postoperative Follow-up Period” section was made because of a coincidence in discharge time and blood sampling time.

2. *Postoperative treatment measures, including anticoagulation and antiplatelet, need to be explained in detail, including dosage and duration of each drug.*

“Antithrombotic therapy” section was added.

3. *In table 3, coagulator parameters were compared between anticoagulant therapy and antiplatelet, but whether there were patients who simultaneously accepted anticoagulant and antiplatelet therapy or not have to be elucidated.*

“Antithrombotic therapy” section was added. Patients did not receive anticoagulants and antiplatelets simultaneously. Antithrombotic therapy was not canceled for surgery and did not change during the observation period.

4. *The content of the paragraph of Subgroup analysis was too tedious and need to be greatly simplified, of which some results could be expressed by table or figure.*

The “Subgroup analysis” section was simplified. The results which were expressed by table 3 were deleted.

5. *The main shortage of the manuscript is that authors only observed the changes of many coagulant factors, but not the adverse events associated with the changes of coagulant factors such as hemorrhage, thrombosis, etc., which would make the clinical value of the manuscript less meaningful.*

In our study, we are also evaluated the prevalence and risk factors for hemorrhagic, thromboembolic complications and other cardiac events in patients with pacemakers. At this stage of the study, we are not ready to provide these data. We believe that the assessment of the coagulant factors may be less valuable without association with adverse events, but it provides a part of the data on how hemostasis system reacts in the early postoperative period after pacemaker implantation. This is especially valuable due to the small number of articles dedicated to the hemostasis system in patients with pacemakers.

6. *The Discussion Part failed to focus tightly on the observational results of the study.*

Main results are now given at the beginning of the “Discussion” section. In the “Discussion” section, we initially added some information regarding the hemostasis system for the potential readers of the article, so that they would have a correct understanding of the results of the work. Initially, we used PubMed to find articles similar to our research. Unfortunately, the international literature presents quite a few works devoted to the study of the hemostasis system in patients with pacemakers. Because of this, the “Discussion” section seems to be unfocused on the results of the study. We referred to a number of works close to our study. Now, at the recommendation

of the editor, we also used RCA to search for works similar to our study, but did not find suitable ones.

Reviewer

#2:

Specific Comments to Authors:

1. There are some concerns. Due to the extreme complexity of coagulation, any extrapolation should be preceded by a caveat on the extreme difficulty of make sure conclusions form the data. In fact, how you could explain the reduction of the activity of many factors when FVII activity remains unchanged?

We agree that the study of coagulation parameters, even with automatic coagulometers, can give inaccurate results. In our study, we focus rather not on the absolute values of the studied parameters, but on their change during the observation period.

Possible explanation for the reduction of the activity of many factors when FVII activity remains unchanged we provided in the “Discussion” section: “...In our study, FVII activity does not decrease in patients during the 30-day observation period, which may be due to its continued activation by tissue factor at the sites of endothelial damage by the electrode. This pathway of coagulation (extrinsic pathway of the cascade model, initiation phase of the cell-based model) remains active throughout the entire observation period, as evidenced by the persistence of FII activity...” and “...it was found that apixaban and rivaroxaban, when compared with acetylsalicylic acid, decrease the activity of FV, FIX, and FXI, the amplification phase factors, due to inhibition of FX. In patients receiving dabigatran etexilate, compared with patients receiving acetylsalicylic acid, there was a decrease in FIX activity due to FII inhibition...”.

2. In materials and methods, exclusion criteria were the presence of a previously implanted pacemaker, contraindications to antithrombotic therapy, pregnancy or breastfeeding, the presence of cancer or remission for less than 5 years. In the results, it is reported that at the screening stage, 255 patients were withdrawn from the study because they already had an implanted PM, had no indications for PM placement, refused to participate in the study, had indications for placement of the other CIED, or were less than 40 years old. This discrepancy should be corrected, and the exclusion criteria should coincide in the two sections. In my opinion, besides, patients without indication for PM placement should be excluded also from the initial sample.

Patients who meet the exclusion criteria as presented in “Materials and methods” section were withdrawn from “Patients’ characteristics” section and from flowchart diagram (Fig. 1).

3. Blood samples were taken before the implantation and then 7 and 30 days after, there are no data on values the day following surgery, that could enrich particularly the results. This should be indicated as a limitation.

“Limitation” section was expanded. We have not performed blood sampling the day after surgery because the aim of our study was not to show hemostasis activation by surgery itself but to show specific influence of pacemaker placement on hemostasis system.

4. The section on biostatistics is very synthetic and should be expanded. Due to the low number of studied patients, any subgroup analysis seems difficult.

“Biostatistics” section was expanded.

5. *Minor suggestions In the abstract conclusions, it is reported that FVII activity did not decrease within 30 days after PM placement. As this should be the main result of the study, values of FVII activity should be cited also in the result section.*

Values of FVII activity are now given in the “Result” section of the Abstract.

6. *Main results of the study should be reported at the beginning of discussion section.*

Main results are now given at the beginning of “Discussion” section.

7. *Localization of the coagulation process is promoted by the anticoagulant system of blood. This sentence is unclear English language should be better checked. Some examples: Roman E Kalinin and Igor A Suchkov was -> Roman E Kalinin and Igor A Suchkov were In figure 1 concent -> consent*

The English translation of the article was checked by another translator.

Company editor-in-chief comments:

Before final acceptance, when revising the manuscript, the author must supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript. To this end, authors are advised to apply a new tool, the RCA. RCA is an artificial intelligence technology-based open multidisciplinary citation analysis database. In it, upon obtaining search results from the keywords entered by the author, "Impact Index Per Article" under "Ranked by" should be selected to find the latest highlight articles, which can then be used to further improve an article under preparation/peer-review/revision. Please visit our RCA database for more information at: <https://www.referencecitationanalysis.com/>.

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