Dear Reviewers,

Thank you so much for your valuable comments to our manuscript entitled “Bone cement implantation syndrome during total hip replacement in a high-risk patient with pemphigus and Parkinson’s disease: A case report” (Manuscript ID:59878). Your comments are very valuable and helpful for the improvement of our paper. According to your kind suggestions, we have revised the whole manuscript. We hope that this updated version will meet with your approval and be qualified to be published in ***World Journal of Clinical Cases***. All the changes to the text have been marked in red. The responses to your comments are listed as follows.

Response to Reviewer 1:

A well written good conceived manuscript presenting an interesting case report on bone cement implantation syndrome. Maybe it would be interesting to present in the introduction chapter the fact that BCIS has different grades of severity and the incidence is quite different for each of them (from 24% in grade I to 9,5% in grade 3, it is really a large gap Are there clinical facts in the initial examination to support the peripheral venous embolism? Are there more biological lab tests available (inflammation markers, blood cell count, hepatic function?)

Response: Thank you very much for your positive summary and evaluation. The grade and incidence of BCIS have been supplied in manuscript (Page 3) and listed as follows: “Proposed severity classification of BCIS is classified as following: Grade 1, moderate hypoxia (SpO2<94%) or hypotension [fall in systolic blood pressure (SBP) >20%]; Grade 2, severe hypoxia (SpO2<88%) or hypotension (fall in SBP>40%) or unexpected loss of consciousness; Grade 3, cardiovascular collapse requiring CPR. Because it is impossible to draw each meaningful hypotension and oxygen desaturation, true incidence of BCIS, especially the lesser degrees, are not systematically collected or published, probably under-extimated[3].].”

Routine vascular color doppler ultrasound revealed acute-stage intramuscular venous thrombosis in the right calf. It has been supplied the revised manuscript (Page 4) and listed as follows: “There is neither pain,stiffness nor swelling,redness below the knees.” Besides, the peripheral blood cells and coagulation function showed no significant abnormalities, while the liver function of the patient was noteworthy damaged. The biochemical liver test result has been supplied the revised manuscript (Page 4) and listed as follows: “Biochemical liver tests showed that transaminotransferase (AST) was 77.73 IU/L, alanine aminotransferase (ALT) was 66.21 IU/L, ALB was 26.88 g/L.”

It seems the patient was in a rather poor overall conditions (1,70mhight and 40 kg weight, maybe cashexia syndrome, do the authors consider this could have been influenced the occurrence of BCIS give the fact that patient was likely not mobilizing himself too much dure to untreated Parkinson and muscle atrophy?

Response: Thank you for your suggestion. Depending on the patient's state, cachexia can be diagnosed. The associated diagnosis has been added in the manuscript (Page 5). The untreated Parkinson and muscle atrophy are high risks for BCIS in this case, and we have discussed it in the revised manuscript(Page 8) and listed as follows: "In this case, the patient suffered from Parkinson's disease without systematic treatment, which can lead to excessive muscle tension and lack of movement. At the same time, due to the poor basic state, the patient was bedridden, leading to muscle atrophy, which may be a high risk of BCIS."

Pulmonary embolism is likely to have been produced by fat emboli, have the specific measures for preventing this event during surgery have been taken (lavage of medular cavity, eventually pressured lavage)? Was a lung CT scan available postsurgery to confirm/follow up the suspected PE?

Response: Thank you for your suggestion. Pulse lavage of the medullary cavity was done before bone cement implant. The material has been added to the manuscript(Page 5) and listed as follows: "shortly after precautionary pulse lavage of the medullary cavity." The patient was responding well to intravenous administration of adrenaline and oxygen therapy through the nasal catheter. Regarding the stable condition in both the hemodynamic and respiratory system without further support, no lung CT scan was scheduled. Sorry for that.

Interesting argumentation regarding the choice of anesthesia. Maybe more commentary is needed regarding the use and the moment of starting anticoagulant therapy, especially given the fact there was already peripheral vein thrombosis before surgery.

Response: Thank you very much for your helpful advice. Related content has been added to the revised manuscript (Page 9) and listed as follows: " Anticoagulation therapy initiated at 12 h postoperatively without any difference from routine prevention of PE, based on the comprehensive consideration of the temporary characteristic of BICS , relatively low risk of intramuscular venous thrombosis and possibilitiy of epidural hematoma."

Response to Science editor:

1 Scientific quality: The manuscript describes a case report of the Parkinson's disease. The topic

is within the scope of the WJCC. (1) Classification: Grade B; (2) Summary of the Peer-Review Report: The work is an interesting case report on a quite common event during hip reconstruction presenting the particularities of such event in a given patient with uncommon association of previous diseases. The manuscript is well organized, informative and of large interest for clinical experts in anesthesiology as well as orthopedic surgeons. However, there are some issues should be addressed. Maybe more commentary is needed regarding the use and the moment of starting anticoagulant therapy, especially given the fact there was already peripheral vein thrombosis before surgery. The questions raised by the reviewers should be answered;

Response: Thank you very much for your positive summary and evaluation. Related content has been added to the revised manuscript (Page 9) and listed as follows: "Anticoagulation therapy initiated at 12 h postoperatively without any difference from routine prevention of PE, based on the comprehensive consideration of the temporary characteristic of BICS , relatively low risk of intramuscular venous thrombosis and possibility of epidural hematoma."

(1)Format: There 2 figures. A total of 17 references are cited, including 1 reference published in the last 3 years. There is 1 self-citation. 2 Language evaluation: Classification: Grade A. A language editing certificate issued by Edanz was provided. 3 Academic norms and rules: The authors provided the CARE Checklist–2016 and informed consent. No academic misconduct was found in the Bing search. 4 Supplementary comments: This is an unsolicited manuscript. The topic has not previously been published in the WJCC. The corresponding author has not published articles in the BPG. 5 Issues raised: (1) I found the title was more than 18 words. The title should be no more than 18 words;

Response: Thank you for your comment. We have changed the title to "Bone cement implantation syndrome during hip replacement in a patient with pemphigus and Parkinson's disease: A case report"

(2) I found no "Author contribution" section. Please provide the author contributions;

Response: Thank you for your comment. The "Author contribution" section has been added in the revised manuscript (Page 1) and listed as follows "Author contributions: Wei Zhou collected the patient's clinical data and contributed to literature review, Kai Li reviewed the literature and draft the manuscript, Wen-jing Zhang contributed to manuscript revision. Guo-qing Zhao made critical revisions related to important intellectual content of the manuscript. all authors read and approved the final manuscript."

(3) I found the authors did not provide the original figures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor;

Response: Thanks for your advice. The original figure document has been uploaded together with the revised manuscript.

(4) I found the authors did not add the PMID and DOI in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout.

Response: Thanks a lot for your comment. We have revised throughout the reference and added the PMID and DOI. While there was no DOI number for literature 5 and 9, so we only added the PMID number. Sorry for that.