Reviewer #1:
Scientific Quality: Grade C (Good)
Language Quality: Grade B (Minor language polishing) We have reviewed the manuscript and completed minor language polishing.
Conclusion: Accept (General priority)
Specific Comments to Authors: none

Reviewer #2:
Scientific Quality: Grade C (Good)
Language Quality: Grade B (Minor language polishing)
Conclusion: Minor revision
Specific Comments to Authors: The authors did a study of aerosol generation and particle size during posterior spinal instrumentations. Though the concept of aerosol generation and study seems logical, and article is written well, few concerns about the practicability of the study implications. most of the orthopedic surgeons use facemask with large shield covering eyes as well during this type of procedures. The universal precautions of safety from SARS-Co-V like wearing a N95 procedures during all aerosol generating procedures can be applied here.

- Thank you for this thoughtful comment. Typically orthopedic surgeons wear eye protection and standard surgical masks during operations and if the patient is known to be on aerosol precautions for COVID-19 or other reason an N95 can be worn. However many cases have been reported of false negative COVID tests before elective procedures that subsequently converted to positive. Furthermore worldwide there there is variable implementation of COVID testing preoperatively before elective procedures. In order to make good recommendations about what PPE is required and also better understand risk of exposure after the fact, it is useful to understand what the potential is for a given procedure to generate aerosols. It is our aim to help fill this gap in understanding related to spinal fusion.

I have reviewed the Peer-Review Report, the full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Orthopedics, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Before final acceptance, uniform presentation should be used for figures showing the same or similar contents; for example, "Figure 1 Pathological changes of atrophic gastritis after treatment. A: ...; B: ...; C: ...; D: ...; E: ...; F: ...; G: ...". The author(s) must include the keyword "COVID-19 or SARS-CoV-2" in the manuscript title.

- We have added SARS-CoV-2 and COVID-19 to our list of keywords.

Please provide the original figure documents.

- We have uploaded the original figure document.

Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor. In order to respect and protect the author's intellectual property rights and prevent others from misappropriating figures without the author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2023.

- This has been completed for both figures. Thank you for the suggestion.

Authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content.

- This has been edited for all tables. Thank you for bringing this to our attention.

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/.

- This has been completed. Thank you again.

Dear author, Please add mentioned Tables in the manuscript.

- Our team has added the tables into the manuscript.