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OPEN PEER REVIEW

The Neurologic Complications Associated with Anesthesia in Pediatrics Treated with Radiotherapy Under Anesthesia

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

2 comments · 3 Jul 2021 – 21 Sep 2021

Referee 1 Reviewer

MAJOR REVISION 3 Jul 2021

Thank you for the opportunity to review this manuscript, which considers some interesting applied issues. The authors conducted a retrospective study involving 133 pediatric patients with brain tumors who underwent anesthesia during radiotherapy. The aim of the study was to identify the potential complications associated with this technique.

The topic of the paper is interesting and worthwhile with respect to presenting the prevalence of complications for some anesthesia methods and suggesting some factors that could have a role in exacerbating these complications, such as tumor site and anesthesia duration. However, there are certain points that require the authors' attention before a final editorial decision can be offered. Besides, the paper's English needs serious revision in terms of grammar and word choice. At this time, your manuscript is not yet acceptable for publication and needs minor revision.

1- In the method section, the inclusion and exclusion criteria are very general and should be explained in more detail.

2- Three different tests are stated to have been used for statistical analysis, but neither the text nor the tables explain which type of test was used to derive each p-value.

3- Also, neurologic complications have not been covered in Methods but are mentioned in Results.

4- The other important problem with Method is that it did not take into account child-to-child variation, which is an important factor given that some children might have inherent risk factors, other than the ones studied, for some of the complications.

5- In the Result section, the reference population for some reported percentages has not been defined clearly, and there are some indications of "significance of differences" for which it is again not clear which two or more groups were compared.

6- Moreover, the description of some tables is not appropriate.

7- In the introduction and discussion, some loss of coherence can be noticed, and the writing structure is not appropriate.

8- Also, the limitations of the study have not been discussed anywhere.

Referee 2 Reviewer

MINOR REVISION 21 Sep 2021

1- The keyword "Neurologic" is not based on MeSH terms!

2- References are not up to date and should be revised.

I think the authors did not read the guideline of the Iranian Journal of Pediatrics carefully! References were not written according to the guideline.

2

Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

The editorial board of Iranian Journal of Pediatrics

Regarding ,

Thank you so much for your reviewers' constructive comments; all requested comments were made and highlighted in the text.

With Regards
Behzad Kazemi haki
Corresponding author

Reviewers' Comments:

Reviewer 1:
Thank you for the opportunity to review this manuscript which considers some interesting applied issues. The authors conducted a retrospective study involving 133 pediatric patients with brain tumor who underwent anesthesia during radiotherapy. The aim of the study was identifying the potential complications associated with this technique.
The topic of paper is interesting and worthwhile with respect to presenting the prevalence of complications for some anesthesia methods and suggesting some factors which could have a role in exacerbating these complications such as tumor site and anesthesia duration. However, there are certain points that require the authors' attention before offering final editorial decision. Besides, the paper's English writing needs a serious revision in terms of grammar and word choice. At this time, your manuscript is not yet acceptable for publication and needs minor revision.
1- In the method section, the indications of inclusion and exclusion criteria are very general and should be explained in more details. We had considered it in the study and mentioned it in the method section.
2- Three different tests have been stated to be used for statistical analysis, but in the text or tables there has been no explanation of the type of test each p-value driven with. Thank you so much for your constructive comment; it was edited.
3- Also, neurologic complications have not been covered in Methods but mentioned in Results. It was edited.
4- The other important problem of Method is that it did not take into account child to child variation which is an important factor knowing that some might have inherent risk factors, other than the ones studied, for some of the complications. We had considered it in the study and mentioned it in the exclusion criteria.
5- In the Result section, the reference population of some reported percentages has not been defined clearly and there are some indications of "significance of differences" which again is not clear which two or more groups they compared. We considered it in the study and wrote it in the result section and under the tables.
6- Moreover, the description of some tables is not appropriate. It was edited.
7- In the introduction and discussion, some loss of coherence can be noticed and the writing

structure is not appropriate. We revised it and edited it.
8- Also, the limitations of the study have not been discussed anywhere. Finally, repeating exact expressions throughout the text (Abstract, results, and conclusion) reflects the incompetency of the writer in English scientific writing. It was added at the end of the study.

Reviewer 2:

1- The keyword "Neurologic" is not based on MeSH terms! It was edited.

2- References are not up to date and should be revised We revised it and edited it.

I think the authors did not read accurately the guideline of the Iranian Journal of Pediatrics! References didn't have been written according to the guideline.

Associate Editor's Comments:

Associate Editor 1:

Your paper has been examined by 2 external reviewers and then re-evaluated in-house.

The reviewers believe that your manuscript is interesting but not publishable in its current form. They have raised a number of points, listed below for your convenience.

EIC Decision:

Thank you for submitting your manuscript to Iran J Pediatr. Your manuscript has now been reviewed by two reviewers and an Associate Editor. I now have the reports of the Referees, which suggest that your manuscript might be suitable for publication following a number of revisions. I attach some reviewer comments and invite you to submit a revised version of your manuscript addressing the points made.

2 Revision 1

1 comment · 27 Nov 2021

Referee 1 Reviewer

MINOR REVISION 27 Nov 2021

Thank you for the opportunity to review this manuscript once again. The corrected version of the manuscript has improved a lot; however, it still needs some revisions. The quality of the English writing is still poor, and I recommend that the authors ask a professional English writer to revise their manuscript.
In the Method section, an explanation of the different anesthesia techniques should be added. In the Results section, there is a mention of "No significant differences were found between demographic data". What do you mean by this sentence? Since you have only one group, I can't understand which two (or more) groups of data you are comparing and finding no difference between.
In the paragraph assessing the effect of tumor site, there is no mention of "Cerebrum", while in table 3 it has the highest frequency.
The limitation and the suggestion for future studies should be included in the Discussion (or in Methods to explain the limitations) or at least be integrated into the conclusion, rather than presented as a separate section at the end of the paper.
What I mean by "the description of some tables is not appropriate" is that the table headings should be revised. For example, the heading of Table 3 is "Tumor location in pediatrics with a brain tumor"; there is no mention of comparing anesthesia frequency for different tumor locations.
Some minor comments:
- There is a misuse of the word "relationship" in some parts of the text. Relationships and differences have different meanings and applications.
- You have stated different p-values for different complications when comparing various anesthesia techniques. It would be better to add them to the table, too.
- There are some limitations when doing multiple comparisons (comparing more than one minor complication across various anesthesia techniques). It is a common mistake to use the same alpha in these situations. There are some statistical techniques to overcome these limitations.
- In the introduction, you have mentioned "fast protons" in the description of ionizing radiation. However, ionizing radiation is not always fast protons.
- Since you only use the chi-square test in your study, you can state that all the statistical analysis has been done using this test and avoid repeating it throughout the text. My previous comment regarding mentioning the test that the p-value is derived from was due to the fact that there was a mention of different tests (t-test, ANOVA) in your previous manuscript.
- There is a mention of using an odds ratio in the methods, but its use in the Results section is not obvious.

3

Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

The editorial board of Iranian Journal of Pediatrics

Regarding ,

Thank you so much for your reviewers' constructive comments; all requested comments were made and highlighted in the text.

With Regards
Behzad Kazemi haki
Corresponding author

Reviewers' Comments:

Reviewer 1:
Thank you for the opportunity to review this manuscript one again. The corrected version of the manuscript has improved a lot, however, it still needs some revisions. The quality of English writing is still poor and I recommend the authors ask a professional English writer to revise their manuscript.
In the Method section, the explanation of different anesthesia technics should be added.
Thank you so much for your constructive comment; it was corrected in the text.

In the Results section, there is a mention of "No significant differences were found between demographic data", what do you mean by this sentence? Since you have only one group, I can't understand which two (or more) groups of data you compare that you can't dins the difference in them.
We removed it from the text. We compared the demographic information of patients in all four anesthesia groups.

In the paragraph assessing the effect of tumor site, there is no mention of "Cerebrum", while in table 3 it has the highest frequency.
We summarized it to prevent the prolongation. And also I should be state that the "Cerebrum" has a lower complication due to their frequency and number of anesthesia complications. (Brainstem and mid brain have highest frequency).

The limitation and the suggestion of future studies should be included in the Discussion (or in Methods for explaining the limitations) or at least be integrated into the conclusion, not as a separate section at the end of the paper.
Thank you so much for your constructive comment; it was corrected in the text.

What I mean by "the description of some tables is not appropriate" is to revise the table's heading. For example, the heading of Table 3 is "Tumor location in pediatrics with a brain tumor"; there is no mention of comparing anesthesia frequency for different tumor locations.
It was corrected in the text.

Some minor comments:
- There is a misuse of the word "relationship" in some parts of the text. Relationships and differences have different meanings and applications.
It was corrected in the text.

- You have stated different p-values for different complications when comparing various anesthesia technics. It's better then add them to the table, too.
It was corrected in the text.

- There are some limitations when doing multiple comparisons (comparing more than one minor complication in various anesthesia technics). It is a common mistake to use the same alpha in these situations. There are some statistical technics to overcome these limitations.
Thanks for your comment; according to our consulting with the statistics consultant, this issue was assessed and investigated. The statistics consultant confirmed the Reliability and Validity.

- In the introduction, you have mentioned "fast protons" in the description of ionizing radiation. However, ionizing radiation is not always fast protons.
It was removed from the text.

- Since you only use the chi-square test in your study, you can state that all the statistical analysis has been done by this test and avoid repeating it throughout the text. My previous comment regarding mentioning the test that the p-value is driven from was due to the fact that there was a mention of different tests (t-test, ANOVA) in your previous manuscript.
It was removed from the text.
- There is a mention of using odds ratio in the methods, but the use of it in the Results section is not obvious.
A human mistake has occurred, and it was removed from the text.

3 Revision 2

0 comments

No public comments in this round.