OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
- More motivations for all involved roles in the review process
- Authors' satisfactions from the review process: Increases honesty between authors and reviewers
- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://sites.kowsarpub.com/kowsar/knowledgebase/category/tree.html#opr.html

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Peer Review Report for "Small for Gestational Age is an Independent Risk Factor for Neurodevelopmental Impairment"

Author(s): Joanna Hubert, Maja Gilarska, Małgorzata Klimek, Magdalena Nitecka, Grażyna Dutkowska, Przemko Kwinta

Review Timeline:

Submit Date: 1 Oct 2018
Revised Date: 4 Jul 2020
Accepted Date: 4 Jul 2020

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (0)

13 Jan 2019

Dear AE,
- Why did you evaluate the neurodevelopmental outcome at 50 months?
- Neurodevelopmental outcome can be evaluated at 24 months' corrected age using the Bayley Scales of Infant and Toddler Development, 3rd Edition (Bayley-III), which evaluates cognitive, language, motor, social-emotional and adaptive competencies.
- You didn't mention that you considered corrected age or chronologic age.
- The small number of neonates in SGA group precludes a meaningful comparison between these two group.
- There are some difference between SGA and IUGR. You considered IUGR as symetric and asymetric SGA subgroups which are absolutely wrong.
-The content of the article does not represent a new find. Association between weight and neurodevelopmental outcome well established among preterm SGA infants, who have more behavioral,sensory,and cognitive, dysfunctions later in life compared with preterm, normal-sized infants.
- There are some grammatical mistakes in your article.
Thanks.

REFEREE: Reviewer | **Revision** (0) 20 Jan 2019

Dear AE,

In the manuscript, entitled “Birth weight small for gestational age as an independent risk factor of neurodevelopmental impairment in children born prematurely.”, the authors aimed to evaluate of neurodevelopmental characteristics of children born prematurely, with particularly of small for gestational age (SGA) as an independent risk factor in this children. Eighty-nine very low birth weight (VLBW) patients were evaluated at the age of 50 months. Various psychometric tests were applied to these children. Authors concluded that birth weight small for gestational age seems to be an independent risk factor of neurodevelopmental delay in children born prematurely.

There are few studies about neurodevelopmental evaluation of children born to SGA and premature children (1-3).

The study method is well-designed and the written language is fluent and understandable. This manuscript has specific objectives.

I. Criticisms

My major criticism about the manuscript, as stated in the limitations of the study, the number of children born SGA is small.

About references, more recent articles could be used (1-3).

II. Questions

The inclusion and exclusion criteria of the study were not clearly defined. For example, were children with severe brain malformations or genetic defects included in the study?

In terms of the possibility of affecting cognitive functions, was there any difference between the subgroups for the presence of epilepsy, using antiepileptic/antipsychotic drugs, or other therapies?

III. Corrections:

In the keywords, “nurodevelopoment” should be corrected as “neurodevelopment”

In the introduction, “as a n independent” should be corrected as “as an independent”

In the materials and methods, “4-yeasr0old” should be corrected as “4-years old”

In the materials and methods, “The results of DVPT-2 (Frostig test) below 85 points5.” should be corrected as “The results of DVPT-2 (Frostig test) below 85 points”

In the materials and methods, “Pearson’s Chi2 test.” should be corrected as “Pearson’s $\chi 2$ or Chi-Square test”

In the materials and methods, statistical analysis: “…. type I error alpha was lower or equal to 0.005.”, what is the reason type 1 error alpha was not only lower, also equal to 0.005?

In the results, “Group characteristics” should be corrected as “Group characteristics”

In the results, “Leirler test results” should be corrected as “Leiter test results”

References

1. Bickle Graz M, Tolsa JF, Fischer Fumeaux CJ. Being Small for Gestational Age: Does it Matter for the Neurodevelopment of Premature Infants? A Cohort Study PLoS One. 2015;10(5):e0125769.

2. Johnson S, Evans TA, Draper ES, Field DJ, Manktelow BN, Marlow N, et al. Neurodevelopmental outcomes following late and moderate prematurity: a population-based cohort study. Arch Dis Child Fetal Neonatal Ed. 2015;100(4):F301-8.

3. Streimish IG, Ehrenkranz RA, Allred EN, O'Shea TM, Kuban KC, Paneth N, et al.; ELGAN Study Investigators. Birth weight- and fetal weight-growth restriction: impact on neurodevelopment. Early Hum Dev. 2012;88(9):765-71.

Thanks.

REFEREE: Associate Editor | **Revision** (0) 16 Feb 2019

Dear EIC,
The manuscript was reviewed by our reviewers. The reviewers have raised concerns regarding the manuscript, and therefore, the paper is not acceptable for publication in this format. However since the reviewers do find some merit in the paper, I would be willing to reconsider if the authors wish to undertake major revisions and re-submit, addressing the referees' concerns.
Please note that resubmitting your manuscript does not guarantee acceptance, and that your resubmission will be subject to a re-review before a decision is rendered.
Thanks.

REFEREE: EIC | **Revision** (0) 16 Feb 2019

Dear Author,
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.
Thanks.

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Dear Reviewers,

We are sincerely grateful for your positive response to the paper. We enclose our response to each of suggestions.

Reviewer 1: Why did you evaluate the neurodevelopmental outcome at 50 months? Neurodevelopmental outcome can be evaluated at 24 months' corrected age using the Bayley Scales of Infant and Toddler Development, 3rd Edition (Bayley-III), which evaluates cognitive, language, motor, social-emotional and adaptive competencies.

We choose 4th year of life to evaluate children, because we were determined to assess the autism spectrum disorder frequency (not only neurodevelopmental outcomes). Our psychologists are experienced in use of CAST (ASD test that is standardized for children aged 4 to 11). 4th year of life was also appropriate to use all other tests described in manuscript.

Reviewer 1: You didn't mention that you considered corrected age or chronologic age.

We invited children at the chronologic age of 4 years (I have added this information to manuscript).

Reviewer 1: The small number of neonates in SGA group precludes a meaningful comparison between these two groups.

Reviewer 2: My major criticism about the manuscript, as stated in the limitations of the study, the number of children born SGA is small.

I agree that the size of SGA group is small, but we enrolled to our study all children born prematurely with birth weight below 1500 grams that were hospitalized in our unit between June 2008 and April 2011. 17% of these children were born with birth weight small for gestational age. All results were analyzed with the use of proper statistical tests, and significance of comparison was presented in manuscript. The differences between groups were notable enough to be shown in a group of this size.

Reviewer 1: there are some difference between SGA and IUGR. You considered IUGR as symmetric and asymmetric SGA subgroups which are absolutely wrong.

We were analyzing children with SGA. IUGR was mentioned few times, only in introduction and discussion. We wanted to show the results of other studies, in which IUGR prematures' neurodevelopmental outcomes were presented.

Reviewer 1: The content of the article does not represent a new find association between weight and neurodevelopmental outcome well established among preterm SGA infants, who have more behavioral, sensory, and cognitive, dysfunctions later in life compared with preterm, normal-sized infants.

Reviewer 2: About references, more recent articles could be used.

We have modified introduction and added few new references

Reviewer 1: There are some grammatical mistakes in your article.

Reviewer 2:
In the keywords, "nurodevelopoment" should be corrected as "neurodevelopment"

In the introduction, "as a n independent" should be corrected as "as an independent"
In the materials and methods, "4-yeasr0old" should be corrected as "4-years old"
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In the materials and methods, statistical analysis: "…. type I error alpha was lower or equal to 0.005.", what is the reason type 1 error alpha was not only lower, also equal to 0.005?
In the results, "Group characteristics" should be corrected as "Group characteristics"
In the results, "Leirler test results" should be corrected as "Leiter test results"

We have analyzed the article and corrected mistakes.

Reviewer 2: The inclusion and exclusion criteria of the study were not clearly defined. For example, were children with severe brain malformations or genetic defects included in the study?

Children with congenital problems that would probably influence their further life were excluded from the study. We have added inclusion and exclusion criteria to materials and methods section: "All children were born prematurely with birth weight below 1500 grams. Children with severe congenital health problems (brain malformations, congenital heart defects, chromosome aberrations, multiple congenital malformations) were excluded from the study."

Reviewer 2: In terms of the possibility of affecting cognitive functions, was there any difference between the subgroups for the presence of epilepsy, using antiepileptic/antipsychotic drugs, or other therapies?

We have data about taken drugs, history of seizures, logopedic therapy, type of rehabilitation, etc. There were no statistically important differences between groups in this parameters. All data available on request.

OPEN PEER REVIEW

Revision (1)

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REFEREE: Reviewer | **Revision (1)** 2 Jul 2019

Dear AE,

In the manuscript, entitled “Birth weight small for gestational age as an independent risk factor of neurodevelopmental impairment in children born prematurely.”, the authors aimed to evaluate of neurodevelopmental characteristics of children born prematurely, with particularly of small for gestational age (SGA) as an independent risk factor in this children. Eighty-nine very low birth weight (VLBW) patients were evaluated at the age of 50 months. Various psychometric tests were applied to these children. Authors concluded that birth weight small for gestational age seems to be an independent risk factor of neurodevelopmental delay in children born prematurely.

It has been seen that the authors make corrections in accordance with the criticism and answer the questions.

There are few studies about neurodevelopmental evaluation of children born to SGA and premature children (1-3).

The study method is well-designed and the written language is fluent and understandable.

I. Criticisms

Again, my major criticism about the manuscript, as stated in the limitations of the study, the number of children born SGA is small.

Recent articles about this topic have been added in line with our recommendations (1-3).

II. Questions

The authors defined exclusion criteria for the study in more detail.

In terms of the possibility of affecting cognitive functions, was there any difference between the subgroups for the presence of epilepsy, using antiepileptic/antipsychotic drugs, or other therapies? No answer about this question.

III. Corrections:

Most of the corrections have been made by the authors. However, there are still a few words that need to be corrected.

In abstract (one time), in Table 2 (twice), and Table 5 (twice); “Leitler” should be corrected as “Leiter”.

The seventh reference should be written in accordance with the journal rules.

In conclusion, although this study has some limitations, may add new knowledge to the literature.

References

1. Bickle Graz M, Tolsa JF, Fischer Fumeaux CJ. Being Small for Gestational Age: Does it Matter for the Neurodevelopment of Premature Infants? A Cohort Study PLoS One.

2015;10(5):e0125769.
2. Johnson S, Evans TA, Draper ES, Field DJ, Manktelow BN, Marlow N, et al. Neurodevelopmental outcomes following late and moderate prematurity: a population-based cohort study. Arch Dis Child Fetal Neonatal Ed. 2015;100(4): F301-8.
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Thanks.

REFEREE: Associate Editor | **Revision (1)** 7 Jul 2019

Dear EIC,
The second round of peer review of the manuscript is completed. I now have the reports of the Referees, which suggest that the manuscript needs more correction.
Thanks.

REFEREE: EIC | **Revision (1)** 7 Jul 2019

Dear Author,
The second round of peer review of your manuscript is completed. I now have the reports of the Referees, which suggest that your manuscript needs more correction.
Thanks.

OPEN PEER REVIEW

Revision (2)

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You can read the authors' responses to the reviewers' comments in the next page.

Dear Reviewers,

We are sincerely grateful for your positive response to the paper. We enclose our response to each of suggestions.

1. In abstract (one time), in Table 2 (twice), and Table 5 (twice); “Leitler” should be corrected as “Leiter”.

Corrected

2. The seventh reference should be written in accordance with the journal rules.

Corrected

OPEN PEER REVIEW

Revision (2)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: EIC | **Revision** (2) 4 Jul 2020

Dear Author,
The third round of peer review of your manuscript has been completed, and I am pleased to inform you that your manuscript has now been accepted for publication in our journal.
Thanks.