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OPEN PEER REVIEW

Determining Deviation of the Growth Pattern of Preterm Infants and Its Causes According to the Fenton Growth Chart: A Longitudinal Follow-up Study

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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

3 comments · 10 May 2024 – 22 May 2024

Referee 1 Reviewer

ACCEPT 10 May 2024

Dear editor
The article titled “Determining deviation of the growth pattern of preterm infants and its causes according to Fenton growth chart” was reviewed. The study was a longitudinal follow-up study. It took into account the type of development and correctly discussed the issue of growth and how to monitor it in preterm babies. The statistical analysis and tables were understandable, and the writing was entirely scientific and pleasant.
Among the factors affecting growth indices in these babies, it seems that the maternal causes of premature birth were neglected. If the authors included these babies in the study without taking into account the maternal causes of premature birth and based only on weight and age at birth, then, considering the impact of these causes on each individual's subsequent growth indicators, some of the factors contributing to the delay in reaching normal height, weight, and head circumference in these babies have been ignored. It is therefore suggested that the results be analyzed and revised based on that information, if it is available.

Referee 2 Reviewer

MINOR REVISION 18 May 2024

First of all, I would like to congratulate the authors on this valuable study, which is very well designed and constructed and can contribute to the literature.
Regular health monitoring of newborn premature babies is very important. Preventive and protective health services are vital for disadvantaged premature babies.

The overall reference count of the article is relatively low. A more scientific discussion can be provided with 20-25 references. It is appropriate to publish the article.

Referee 3 Reviewer

MAJOR REVISION 22 May 2024

Thank you for your work.
I have a few points.
1. The use of the WHO chart was the reason for the significant growth failure at 6 months, so at 6 months, did you subtract the preterm days (corrected gestational age), or did you plot the child at 6 months? You did not clarify this.
2. I think if you had used the WHO chart for all participants and plotted the corrected gestational age, the results would have been more acceptable.
3- The PERCENTAGES field in TABLE 1 is not clear. What did you mean by 80/4?

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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.

Dear Iranian Journal of Pediatrics Editor in Chief

We are sincerely grateful for the chance to submit an updated version of our manuscript entitled "Determining deviation of the growth pattern of preterm infants and its causes according to Fenton growth chart: A longitudinal follow-up study". We would like to express our deep appreciation for the considerable time and effort invested by both you and the reviewers in providing valuable feedback on our work. The insightful comments shared by the reviewers have been truly invaluable. We have diligently addressed the suggestions provided and have made modifications to the manuscript accordingly. The revised sections have been appropriately highlighted within the document.

Thank you once again for your support and guidance throughout this process.

Comments from Reviewer 1

Comment 1: [The overall reference count of the article is relatively low. A more scientific discussion can be provided with 20-25 references.]

Response: Thank you for bringing this comment to our attention. We are in agreement and have strengthened the article by adding five references.

Comments from Reviewer 2

Comment 1, 2: [The use of the WHO chart was the reason for the significant growth failure at 6 months, so at 6 months did you subtract the preterm days (corrected gestational age) or you did plot the child at 6 months? You did not clarify this. I think if you used the who chart for all participants and plotted the corrected gestational age, the results would have been more accepted]

Response: We appreciate your astute observation regarding the decline in growth z-scores for premature infants at the 6-month mark. As you can see in result, preterm babies improved in z-scores from discharge to one month weight, discharge to 3 months for length and then deteriorated considerably to 6 months (to z-scores of -1.79 and -2.5) when they would be expected to improve their growth. One of the important causes of growth reduction at 6 months in premature babies was that the age of these babies was not corrected, these babies at this age were checked with the standard curve of terms because the Fenton curve is only up to 50

months, which we mentioned in the text of the article: [In our study, the reason for the increase in growth failure at 6 months of age could be related to this fact that preterm infants were compared with WHO term infants' charts, which are not the standard growth pattern for preterm infants, and at modified age of two years, these infants regain weight in accordance with infants of the same age. In Iran, there are still no standard and reference charts to assess the growth of these children at the age of 50-week postnatal until they reach the modified age of two years]

Comment 3: [Table 1 percentages field is not clear, what did you mean by 80/4?]

Response: Thanks. As you can see at the top of the table, the numbers in the second column represent the percentage, which is indicated by the percentage sign at the top of the table. In this particular case, 80/4% of the premature babies were AGA.

Comments from Reviewer 3

Comment 5: [If the authors of the article have included these babies in the study without taking into account the maternal causes of a birth and only based on the weight and age of birth, considering the impact of these cases on channeling the growth indicators of each person in the future, it can be said that part of the factors The delay in reaching normal height, weight and head circumference in these babies has been ignored, so it is suggested to analyze and revise the results based on that information if it is available.]

Response: We found your recommendations to be entirely aligned with our own analysis. A successful pregnancy is a unique achievement in the life of women, the weight of the fetus is a result of the mutual effect of environmental, genetic factors of the placenta, mother's fetal hormones, and maternal complication. these mentioned factors definitely affect post-natal growth, morbidity and mortality in babies specially in preterm infants. Unfortunately, due to various reasons (specially Covid-19) in this study, we had incomplete access to the information of the mothers, and for this reason, in order to avoid errors, we omitted the analysis of these data. We will demonstrably integrate your recommendations into the design of forthcoming studies on the developmental care of premature neonates.

2 Revision 1

1 comment · 17 Jun 2024

Huseyin Dag Reviewer

ACCEPT 17 Jun 2024

It is appropriate to publish an article that can contribute to the literature in terms of healthy follow-up of premature babies, making neonatal units suitable, and proper follow-up of pregnant mothers.