Journal of Clinical and Translational Research
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Breastfeeding results in better hearing in newborns compared to bottle feeding

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1st editorial decision
8-Jul-2020

Ref.: Ms. No. JCTRes-D-20-00050
Breastfeeding results in better hearing in newborns compared to bottle feeding
Journal of Clinical and Translational Research

Dear Dr. SEQUI CANET,

Reviewers have now commented on your paper. You will see that they are advising that you revise your manuscript. If you are prepared to undertake the work required, I would be pleased to reconsider my decision.

For your guidance, reviewers' comments are appended below.

If you decide to revise the work, please submit a list of changes or a rebuttal against each point which is being raised when you submit the revised manuscript.Also, please ensure that the track changes function is switched on when implementing the revisions. This enables the reviewers to rapidly verify all changes made.

Your revision is due by Aug 07, 2020.

To submit a revision, go to https://www.editorialmanager.com/jctres/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission

record there.

Yours sincerely

Michal Heger
Editor-in-Chief
Journal of Clinical and Translational Research

Reviewers' comments:

Reviewer #1: The article provides useful data aiming to compare hearing results of breastfeeding to bottle fed newborns. The study design is good (Patients and Methods section, exclusion criteria, protocol and Techniques), while it reaches a logical conclusion that breastfeeding reduces the number of false negative results.
My comments are as follows:
On the Exclusion criteria section, newborns that were delivered by cesarian section were excluded from the study since they are usually tested on the third day. The question is whether TEOAE's results are more accurate on the third day. Therefore, a statement should be included in the original hypothesis that breastfeeding might help us obtain PASS results on the first couple of days since the Eustachian tube might take longer to open and provide middle ear aeration in bottle fed newborns.
On the Protocol section, the author mentions that testing usually took place following feeding time, however a comment regarding the babies that were tested while being fed should be made; babies that are bottle fed, make more noises (gulping, gasping) and therefore results would be more difficult to obtain compared to breastfeeding babies.
On the Results section, Table 2 data should be made more clear. The author needs to provide more details as to what % within TEOAE's means, since it is not well understood.
On the Discussion section, the assumption made following the cited article by Van Kerschaver [12] raises several questions. There is no exact mechanism that may link Congenital Hearing Impairment to breastfeeding, since breastfeeding on its own can only be potentially considered as a postnatal cause. Also, it remains unclear why poor people are less likely to breastfeed (is it due to poor health?) since one can only make the assumption that poor people are less likely to be able to bottle feed their newborns due to a high cost.

There is additional documentation related to this decision letter. To access the file(s), please click the link below. You may also login to the system and click the 'View Attachments' link in the Action column.

Author's response

The article provides useful data aiming to compare hearing results of breastfeeding to bottle fed newborns. The study design is good (Patients and Methods section, exclusion criteria, protocol and Techniques), while it reaches a logical conclusion that breastfeeding reduces the number of false negative results. THANK YOU, VERY GOOD COMMENTS

My comments are as follows:

On the Exclusion criteria section, newborns that were delivered by cesarian section were excluded from the study since they are usually tested on the third day. The question is whether TEOAE's results are more accurate on the third day.

PROBABLY RESULTS ARE MORE ACCURATE ON 3-7 DAY OF LIFE FOR ALL BABIES BECAUSE PASS RATE IS HIGHER BUT MATERNITY PROTOCOLS DO DISCHARGE FROM MATERNITY WARD AROUND 48H OF LIFE IN VAGINAL DELIVERIES. THAT IS THE REASON FOR NO MIXING VAGINAL AND CAESAREAN.

IN ANOTHER PAPER I CAN ANALYZE THIS QUESTION ONLY EN CAESAREAN BABIES (IN FACT I HAVE

DONE THIS AND ALSO BREASTFEEDING HAVE BETTER RESPONSE)

Therefore, a statement should be included in the original hypothesis that breastfeeding might help us obtain PASS results on the first couple of days since the Eustachian tube might take longer to open and provide middle ear aeration in bottle fed newborns.

I THINK THE SAME. INCLUDED IN NEW TEXT

On the Protocol section, the author mentions that testing usually took place following feeding time, however a comment regarding the babies that were tested while being fed should be made; babies that are bottle fed, make more noises (gulping, gasping) and therefore results would be more difficult to obtain compared to breastfeeding babies.

NO BABIES WERE TESTED WHILE BEING FED ALLWAYS WERE TESTED AFTER BEING FED. ALSO INCLUDED IN TEXT.

On the Results section, Table 2 data should be made more clear. The author needs to provide more details as to what % within TEOAE's means, since it is not well understood.

OK. I HOPE NEW TEXT SOLVES THIS MATTER

On the Discussion section, the assumption made following the cited article by Van Kerschaver [12] raises several questions. There is no exact mechanism that may link Congenital Hearing Impairment to breastfeeding, since breastfeeding on its own can only be potentially considered as a postnatal cause. Also, it remains unclear why poor people are less likely to breastfeed (is it due to poor health?) since one can only make the assumption that poor people are less likely to be able to bottle feed their newborns due to a high cost.

I THINK THE SAME BUT THIS AUTHOR SAID THAT. I CORRECTED THE TEXT IN ORDER TO REINFORCE

THE IDEA THAT IT IS A MATTER OF MIDDLE EAR MORE THAN A REAL PERMANENT HEARING LOSS

In my judgement the article could be published, after major revision

I HOPE THIS TEXT WILL SUIT BUT ANY CHANGES YOU NEED I WILL DO IT

2nd Editorial decision
21-Jul-2020

Ref.: Ms. No. JCTRes-D-20-00050R1
Breastfeeding results in better hearing in newborns compared to bottle feeding
Journal of Clinical and Translational Research

Dear author(s),

Reviewers have submitted their critical appraisal of your paper. The reviewers' comments are appended below. Based on their comments and evaluation by the editorial board, your work was FOUND SUITABLE FOR PUBLICATION AFTER MINOR REVISION.

If you decide to revise the work, please itemize the reviewers' comments and provide a point-by-point response to every comment. An exemplary rebuttal letter can be found on at http://www.jctres.com/en/author-guidelines/ under "Manuscript preparation." Also, please use the track changes function in the original document so that the reviewers can easily verify your responses.

Your revision is due by Aug 20, 2020.

To submit a revision, go to https://www.editorialmanager.com/jctres/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission record there.

Yours sincerely,

Michal Heger
Editor-in-Chief
Journal of Clinical and Translational Research

Reviewers' comments:

Reviewer #1: Thank you for your reply, please see additional comments.

Page 2, Lines 21-24: Please rephrase. A probable explanation is the one you mentioned in abstract (opening of Eustachian tube etc.) Please rephrase 23-24 ; do you mean the real effect of breastfeeding?

On Results Section, page 4, Table 2. I still have trouble identifying what within TEOAE's means in the table. Could you please be more specific? What does this number show?

Page 5, line 36 'we informed preliminary' please rephrase

Page 6 line 57-60, please rephrase

There is additional documentation related to this decision letter. To access the file(s), please click the link below. You may also login to the system and click the 'View Attachments' link in the Action column.

Author's response

Thank you for giving us an opportunity to resubmit a revised version of our manuscript entitled "Breastfeeding results in better hearing in newborns compared to bottle feeding."

We have addressed all comments of the reviewers using the track changes function in Word Manuscript JCTRes-D-20-00050 - rew1 chgctrl (attached as supplementary material not for

publication). Moreover, every modification or rebuttal of the reviewer's comments is detailed per comment below in red italics.

We are grateful for the useful comments of the reviewers, as a result of which the paper has been considerably improved.

On behalf of the authors, kindest regards,

REVIEWER COMMENTS

Reviewer #

Page 2, Lines 21-24: Please rephrase. A probable explanation is the one you mentioned in abstract (opening of Eustachian tube etc.) Please rephrase 23-24 ; do you mean the real effect of breastfeeding? YES I MENA THAT. I HAVE REPHRASED THIS:

One of such factors appears to be the feeding type (breastfed newborns seem to have a better response to TEOAE) which seems to modify the pass rate to hearing screening test as described in various studies but for which a clear explanation has not been provided. Breastfeeding has many advantages and some studies in infants have demonstrated that it prevents otitis media by means of opening the Eustachian tube and clearing mucus in middle ear which is perhaps also combined with immunological effects but in newborns, the real effect of breastfeeding on response and pass rate to the TEOAE screening test is yet to be confirmed [11-15].

On Results Section, page 4, Table 2. I still have trouble identifying what within TEOAE's means in the table. Could you please be more specific? What does this number show?

Table 2: Crosstab feeding vs TEOAE results

			TEOAE		Total
			TEOAE FAIL	TEOAE PASS	
Feeding	Formula	**Count**	**331**	**3083**	**3414**
		% within Feeding	9,7% (1)	90,3%	100,0% (3)
		% within TEOAE	33,8% (2)	26,3%	26,8%
	Breast	**Count**	**648**	**8658**	**9306**
		% within Feeding	7,0%	93,0%	100,0%
		% within TEOAE	66,2%	73,7%	73,2%
Total		**Count**	**979**	**11741**	**12720**
		% within Feeding	7,7%	92,3%	100,0%
		% within TEOAE	100,0% (4)	100,0%	100,0%

Pearson Chi-Square	Value	df	Asymp. Sig. (2-sided)
	26,244	1	0.0001

Risk Estimate	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for feeding (Formula / Breast)	1,434	1,249	1,648

1. (1) This is the **row percentage** (i.e., out of the 3414 who are FORMULA FED, 331 are FAILS, 331/3414=9.7%). THAT IS REFERRED TO FEEDING TYPE.
2. (2). This is the **column percentage** (i.e., out of the 979 who are TEOAE FAILS, 331 are FORMULA FED, 331/979=33.8%). THAT IS REFERRED TO TEOAE RESULTS.
   When you look at all the babies that have TEOAE done you realize that formula fed represent 26.8% of all TEOAE and in this special group you see that there are more fails (33.8%) than pass (26.3%). The contrary occurs with breastfed , they represent 73.2% of all TEOAE done and the percentage of fails (66.2%) is lower than the pass (73.7%).
3. WHEN YOU SEE 100% IT REFERS TO OVERALL PERCENTAGES OF EACH VARIABLE i.e. (3) 100% OF FORMULA FED; (4) 100% OF FAILS TO TEOAE)

BOTH PERCENTAGES ARE WORSE IN FORMULA FED NEWBORNS

Table 2 shows that related to feeding type there is a significantly ($p<0.0001$) higher percentage of fails to TEOAE found in formula-fed (9.7%) vs breastfed newborns (7 %) and also related to TEOAE results, there is a higher percentage of fails vs pass in formula fed newborns (33.8% vs 26.3%) than in breastfed (66.2% vs 73.7%).

The odds ratio of failing for formula fed newborns was 1,434 (1,249-1,648).

Page 5, line 36 ‘we informed preliminary’ please rephrase

, in a different group of newborns, about diverse perinatal factors influencing TEOAE results we have informed in a preliminary way about a significant difference in response between breast and formula fed newborns [11].

Page 6 line 57-60, please rephrase

Boone [21] showed that one month of feeding at the breast was associated with 4% reduced odds of ever having otitis media, and for infants fed at the breast for 6 months the reduced odds were 17%. Among infants who were fed with expressed milk in the first 6 months postpartum, the odds of experiencing otitis media increased by approximately 14% for infants fed for 1 month and by 115% for infants fed for 6 months . This finding suggests that the feeding mode rather than the substance fed underlies the differences in the risk of otitis media [21].

Thank You very much for improving the final version.

3rd Editorial decision
28-Jul-2020

Ref.: Ms. No. JCTRes-D-20-00050R2
Breastfeeding results in better hearing in newborns compared to bottle feeding
Journal of Clinical and Translational Research

Dear authors,

I am pleased to inform you that your manuscript has been accepted for publication in the Journal of Clinical and Translational Research.

You will receive the proofs of your article shortly, which we kindly ask you to thoroughly review for any errors.

Thank you for submitting your work to JCTR.

Kindest regards,

Michal Heger
Editor-in-Chief
Journal of Clinical and Translational Research

Comments from the editors and reviewers:

Reviewer #1: Thank you very much for addressing all of my comments. Excellent work