

ANSWERING REVIEWERS

Dear Editor,

First we would like to thank the reviewers for their valuable comments and suggestions that enriched our study. We considered their comments and we amended the manuscript accordingly. All the changes are underlined in the manuscript. We also replied to each reviewer' comments in the following text:

Reply to Reviewer (1)

1. We added a table comparing between the DLD group and non-DLD to highlight the effect of the demographic data including the consanguinity rate effect and we amended the manuscript accordingly.
2. Regarding the metabolic disorders, we already excluded this category from our study and we mentioned that in the text.

Reply to Reviewer (2)

1. We added a table comparing the effect of the presence/absence of maternal risk factors on language and cognitive outcomes and we amended the manuscript accordingly.
2. The total number of cases with mixed risk factors was 15, but when these mixed cases were sub-grouped (e.g. prematurity with RDS, Prematurity with HIE), the number of cases became so small to be subjected to statistical analysis. A larger number of mixed cases with sub-grouping is undoubtedly needed to identify the effects of combination of neonatal risk factors on the language and cognitive outcome.
3. Regarding "Analysis on the degree and duration of hypoxia or hypoglycemia could have helped in stratifying the risk potential". For sure, the degree and duration of hypoxia and hypoglycemia was significantly needed to measure the degree of affection of both the degree and duration hypoxia and hypoglycemia on the outcome. Unfortunately; the data were not available in most cases because many cases were delivered from peripheral and private hospitals and then transferred to the neonatal care unit at Mansoura University Children Hospital with no clear data on these parameters. We recommend further study to measure these variables on the language and cognitive outcomes.
4. Regarding "There is no data on the small number of hearing impaired children (quite a low number given this high risk population?)." Except for the group of premature neonates; the other risk factors were mostly associated with full-term neonates which express a lower risk of hearing impairment relative to premature neonates. In addition, head cooling was available in neonatal care unit at Mansoura University Children Hospital and its use may possibly exerted a protective effect.
5. Regarding the effect of birth order; we found no statistically significant difference between DLD group and non-DLD group and we added a table describing this comparison. On the other hand , it is not our scope to study the effect of parent-child interaction and the order of birth which is actually a good idea that could be a basis of other study.
6. A paragraph on the suggested preventive measures was added to the discussion section.

Reply to Reviewer (3)

1. We added the definition of hypoglycemia/ hyperbilirubinemia in the manuscript.

2. Regarding “the healthy control”. In our study we compared between DLD group and non-DLD group. We used the later group as a control group who exposed to the same risk factors. So we felt that there was no need to have non-high risk (healthy) ones.

Reply to Reviewer (4)

1. The symbol “step 1a” was an error in writing the table, so we removed. Table 10 (which was table 8 in the previous manuscript) is an aggregate of 5 tables, each one of them was specified for a single risk factor to define its relative risk among the other risk factors.

2. Table (11) (which was table 9 in the previous manuscript) is not complementary to table (10) (which was table 8 in the previous manuscript). It is done (Table 11) after doing univariate analysis for all neonatal risk factors and selected the 2 significant factors and entered into multivariate stepwise forward regression. These 2 factors were entered into first step regression and the result was statistically significant so it was subjected to step 2 regression analysis. The following table was not added to the paper to line up size of manuscript but this was the original binary logistic regression table upon which table 11 was based.

		Univariate			Multivariate		
		P	OR	CI	P	OR	CI *5%
Age		0.2	1.06	0.96-1.15			
Sex	Male	0.003	0.27	0.11-0.65	0.65	2.2	0.07-74.3
	Female						
Maternal age		0.3	1.04	0.95-			
N of Children		0.15	1.37	0.88-			
Order of birth	1.00	.666					
	2.00	.259	.283	.032-2.5			
	3.00	.381	.367	.039-3.4			
	4.00	.271	.250	.021-2.9			
Outcome of pregnancy	single	.806					
	Twin	.900	.911	.211-3.9			
	Triple	.728	1.375	.228-8.3			
Consanguinity	Negative	0.9	1.05	0.4-2.8			
	Positive						

Maternal factors	No	0.9	1.06	0.46-2.4			
	Yes						
Gestational age		0.28	0.9	0.8-1.05			
Birth weight		0.067	0.6	0.4-1.03			
High risk factors	Hyperbilirubinemi	.232					
	Hypoglycemia	.336	2.154	.451-			
	Hypoxia	.914	1.077	.281-4.1			
	Mixed causes	.623	1.385	.378-5.1			
	Prematurity	.188	2.538	.634-			
	RDS	.020	4.846	1.287-			
IQ		<0.001	0.8	0.7-0.9	0.4	0.9	0.7-1.16
Total language		<0.001	0.8	0.78-0.9	0.26	0.95	0.9-1.03
Total language age		<0.001	0.75	0.67-0.8	0.06	0.35	0.1-1.03
Parents interaction	No	<0.001	0.07	0.02-0.26	0.06	0	0-1.47
	Yes						
Social Age		0.001	0.87	0.8-0.9	0.2	1.6	0.8-3.2