Reviewer’s report

Title: Identification of a novel splicing mutation in the SLC25A13 gene from a patient with NICCD: a case report

Version: 1 Date: 17 Aug 2019

Reviewer: Duangrurdee Wattanasirichaigoon

Reviewer's report:

Dear the Editor of BMC Pediatrics

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While I appreciate the changes that the authors have made, this manuscript can be improved further by adding more information into the differential diagnosis and discussion sections.

The authors have responded to my comments by 1) adding a paragraph describing differential diagnoses based on clinical data, basic laboratory findings and radiologic investigation; and 2) detailing the result of splice site change in Supplementary Table 2.

Here are my comments

– Line 33-46 or line 1-7 of the new paragraph is useful.

– The authors should beware of saying 'the only possible pathogenesis is inherited metabolic diseases' is not absolutely correct. There are still other possibilities. The authors may tone down the statement, such as 'likely possible…'

– Elevated AFP is not specific finding, it can be found in several metabolic liver diseases including tryosinemia, galactosemia, fatty acid oxidation and cartitine cycle defects, and of course NICCD. I hope the to see authors make use other laboratory data for differential diagnoses, for examples, the elevated lactate level, uric acid level, procalcitonic, ammonia, and glucose. How this values help the authors in supporting and/or excluding which disorder.

– There was nothing wrong with the HSF data and information provided in Supplemental Table 2. To be more specific, I request that the authors add the statement of the predicted protein change as a result of splice site error of the novel mutation they identified c.1841+3_1841+4delAA. How the authors predict about the mutant mRNA for example, the mutant mRNA resulting in exon 17 skipping, aberrant mRNA contacting part of IVS17, and/or an activation of a nearby
cryptic splice site and its location, etc. With this/these predictions what is the predicted mutant protein, such as the where the frameshift starts and where the new stop codon take place (if applicable).

Sincerely yours,

Duangrurdee Wattanasirichaigoon, MD.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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