Author's response to reviews

Title: Increased expression of ACTH (MC2R) and Androgen (AR) receptors in giant bilateral myelolipomas from patients with congenital adrenal hyperplasia

Authors:

Madson Q Almeida (madsonalmeida@usp.br)
Laura Kaupert (laukau@ig.com.br)
Luciana Brito (lucpbrito@gmail.com)
Antonio Lerario (amlerario@gmail.com)
Beatriz Mariani (beatrizmariani@usp.br)
Marta Ribeiro (martinha_ribeiro@hotmail.com)
Osmar Monte (osmarmonte@uol.com.br)
Berenice Mendonca (beremen@usp.br)
Tania Bachega (tbachega@usp.br)

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Author's response to reviews: see over
Dear Editor-in-Chief:

Thank you very much for the review of our manuscript: “Increased expression of ACTH (MC2R) and Androgen (AR) receptors in giant bilateral myelolipomas from patients with congenital adrenal hyperplasia” as a research article in BMC Endocrine Disorders.

We have improved our manuscript according the suggestions and comments.

Sincerely,

Madson Queiroz Almeida, MD
Unidade de Suprarrenal e Endocrinologia do Desenvolvimento, Laboratório de Hormônios e Genética Molecular LIM-42, Hospital das Clínicas e Instituto do Câncer (ICESP), Faculdade de Medicina da Universidade de São Paulo
Av. Dr. Enéas de Carvalho Aguiar, 155, 20 andar Bloco 6
05403-900, São Paulo, SP, Brasil; Phone: 55 11 30697512; Fax: 55 11 30697519
E-mail: madsonalmeida@usp.br
Editor comments:

1. We updated our ethics statement to include the name of the ethics committee that approved your study (page 5, line 11).

2. We stated in the Methods section whether written informed consent for participation in the study was obtained from participants.

3. We improved the style of written English as suggested.

4. We revised our manuscript to include line and page numbers.

Reviewer 1:

Thank you very much for your comments. We have improved our manuscript according your suggestions.

Minor remarks:

1. We edited the title to better represent our findings: “Increased expression of ACTH (MC2R) and Androgen (AR) receptors in giant bilateral myelolipomas from patients with congenital adrenal hyperplasia”.

2. We expanded the abbreviations in the abstract, as requested.
3. We included a sentence about MC2R in the background as requested (page 4, line 19).

4. We corrected the following sentence: “we hypothesized that ACTH and AR might have a role in the pathogenesis of myelolipomas” (page 4, line 23).

5. We expanded ACTB and GAPDH abbreviations (page 6, line 5).

6. Abdominal masses were identified with computed tomography (CT) in the two patients with bilateral myelolipomas and CAH, or magnetic resonance imaging (MRI) in the two sporadic ones. CT scan revealed giant bilateral adrenal myelolipomas with fat component density in both cases. Although the density was suggestive of myelolipoma, the measurement of HU is not available, because CT imaging was not digitalized at that time. MRI demonstrated fat tissue signal in both sporadic cases. These information were included in the case report (page 7, line 12 and 18; page 8, line 4).

7. We included a space as requested between patient 1 and 2 as requested.

8. We have added all requested data about patients 3 and 4: “Patient 3 (a 48-yr-old female) and patient 4 (a 40-yr-old female) presented with incidental findings of sporadic unilateral adrenal myelolipoma … The patients did not present any clinical presentation of hyperandrogenism and non-classical CAH was rule-out by clinical evaluation.” (page 8, paragraph 1).
9. The patients did not present any clinical presentation of hyperandrogenism and non-classical CAH was rule-out by clinical evaluation.” (page 8, paragraph 1).

10. We made minor changes in the following sentence as requested: “One of the hypotheses is that hematopoietic and fat elements could derive from common progenitor cells secondary to stimulatory factors” (page 9, line 9).

11. We reworded the following sentence as requested: “In conclusion, we first demonstrated here MC2R or AR overexpression in giant bilateral myelolipomas from poor-compliance CAH patients. Therefore, we can speculate that chronic ACTH and androgen stimulation may play a causative role in myelolipomas of poorly controlled CAH patients.” (page 10, paragraph 2).

12. We discussed the topic of ACTH exposure: “Despite of chronic ACTH hyperstimulation, myelolipoma from patient 1 did not present MC2R overexpression” (page 9, line 19).

13. We regret that it was not possible to include histopathology figure of myelolipomas associated with CAH. Unfortunately, the blocks/slides were not localized in the archives of the Pathology section.

14. All spacing errors were corrected.
Reviewer 2:

Thank you very much for your comments. We have improved our manuscript according your suggestions.

Minor remarks:

1. We rephrased the sentence in the Methods from the Abstract, as requested: “in two giant bilateral adrenal myelolipomas from two untreated simple virilizing CAH cases and in two sporadic adrenal myelolipomas.”

2. The sentence about the sample number was better described as requested: “Four patients with myelolipomas were evaluated in this study: two giant bilateral adrenal myelolipomas from two untreated simple virilizing CAH cases and two sporadic adrenal myelolipomas.” (page 5, line 14).

3. We corrected the name for the Leptin gene (LEP) in all manuscript.

Discretionary Revisions:

We corrected the extra space before the last base in the first primer sequence and included the apostrophe after the number 5 and 3.