Reviewer's report

Title: Early Commitment of Cardiovascular Autonomic Modulation in Brazilian Patients with Congenital Generalized Lipodystrophy

Version: 0 Date: 10 Jul 2017

Reviewer: Josivan Lima

Reviewer's report:

This is an original article on an interesting topic and deserves to be published after some modifications.

Title

The title is adequate, and it says what was studied.

Abstract

Page 3

Line 17 - change to "...including the commitment of cardiovascular autonomic modulation..."

Line 31 - change "compared" to "paired"

Line 58 - include the value of correlation (r = ?, p = ?)

Background

It is appropriate, identifying the problem and justifying the study.

Page 4

Line 24 - "guideline" does not need to be in italic. The abbreviation HRV appears for the first time here and needs to be defined at this point.

Line 38 - Please, include a reference after "nervous system".
Line 41 - Change "testes" to "tests".

Line 58 - Please, include a reference after "the disease".

Page 5

Line 12 - Please, include a reference after "important role".

Line 31 - Refer to a more recent article, like this:


Methods

Page 6

Line 34 - Do you mean "who were regularly seen in our service"?

Line 51 - Presence of acromegaly is not a diagnostic criterion. Otherwise, if there is acromegaly, the patient should be excluded.

Line 58 - Can you cite the specific mutation of each patient?

Page 8

Line 4 - Change pot-prandial to postprandial

Line 9 - Change chat to chart

Page 10

Line 44 - Change reproducibility to reproducibilities.

Lines 38 and 43 - Use only one of the two writes: coefficient E/I or E/I coefficient.
Line 24 - Do you mean "30th heart beat… 15th heart beat" instead of "30o and 15o"?

Line 48 - Change to "…observing elevated correlations (r= 0.775; p<0.001, and r= 0.806; p<0.001, respectively).

Results

It would be interesting to compare the frequency of CAN according to triglyceridemia tertiles (1st tertile vs. 3rd tertile) in each of the groups.

Likewise, I would like to know the frequency of CAN in patients with and without nephropathy.

Discussion

Page 15, Line 34 - Put the sensitivity value before the "and". Exclude the second "and".

The authors state (page 17, lines 46-47) that low leptin has an inhibitory effect on the sympathetic system. So, it has not been clear to me why basal heart rate is higher in patients with CGL.

Page 19, Line 31 - Change "a group are associated" to "a group is associated"


Tables

Table 1 - For a better understanding of the individual characteristics of each CGL patient, I suggest including a "CAN (yes / no)" column.
Table 2 –

Line 15 - Change MBI to BMI

Line 32 - Change Pioglitazon to Pioglitazone

Line 33 - Change Losartana to Losartan

Line 36 - Change "Uso de insulina" to "Use of insulin"

Include a column with duration of diabetes, comparing if there is any difference between the CGL and DM1 groups.

Line 37 - Fasting glycemia was not available in the DM1 group? Do you have (for all 3 groups) capillary blood glucose before the test? If so, you could include them instead of fasting blood glucose.

Legend - HDL is described twice. Change "NA: not applicable" to "NA: not available"

Table 3 –

Lines 10 e 11 - Change "CAN (%)" to "CAN % (n)"

Line 32 - Exclude "Sistema simpatico"

Table 4

To increase the number of patients, the CGL and controls groups were evaluated together. But as CGL have higher insulin resistance, higher triglyceridemia values, lower HDL, higher A1c, the correlation is there probably due to selection bias. It is necessary to emphasize this in the discussion and to affirm that the analysis of the CGL group alone did not show statistical significance. Also, remember that correlation evaluates only association between two variables and not causality.

Table S3

Why is the number of type 1 diabetes only 14 and not 20?

In this table, the CAN frequency was not different in the CGL and DM1 groups.

Figure - Ok.
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

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