Reviewer’s report

**Title:** Assessment of anterior-posterior spinal curvatures in children suffering from hypopituitarism

**Version:** 0  **Date:** 22 Jul 2019

**Reviewer:** Aleksandra Truszczyńska-Baszak

**Reviewer's report:**

The manuscript concerns a very important problem - body posture of children with growth deficiency. I want to congratulate authors the idea of conducting this important study but there are many concerns that have to be address:

**Introduction.**

The authors mention the quality of life in the introduction, but the results lack information if it was analyzed.

The authors mention changes in muscle strength in children in the introduction and in the discussion, but they do not present the results.

**Methods.**

Only one method of measurement were conducted.
No control group age and sex matched.
No information was provided regarding:

- for the size of the measurement error,
- the researcher's experience in conducting measurements
- how was the age of the study group estimated?
- no information was given how many children were at what age.

Paragraph 228 - what authors mean by chest angle?

Table 8 - what authors mean by pare zmiennych?

Table 9 presents the results of the significance test of Spearman's rank correlation coefficient between the length of treatment with growth hormone and angle of thorax kyphosis, lumbar angle and alpha angle but 33 children were included, also those who did not have the treatment.
This same concerns table 10. 33 children were included, but only 27 were under treatment.

Discussion

Authors mention that there were researches that showed progression of scoliosis under GH treatment, but they did not measure scoliosis in their study.

They cite different research regarding children posture but do not discuss their results with them.

They cite as well research for example Stupnicki et al that do not correspond with their study.

Authors state that girls who presented growth hormone deficiency either had problems with changing body position from horizontal to sitting but did not present these results.

No limitations and strength of the study were mentioned.

Discussion should be carefully rewritten.

References: only 4 positions from the last 5 years, many in Polish language, supplements and PhD thesis instead of original up to date research were cited.

References require careful adjustment

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

No

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

No

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

Unable to assess

**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.

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Needs some language corrections before being published

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