**Reviewer’s report**

**Title:** FSH may be a useful tool to allow early diagnosis of Turner syndrome

**Version:** 1  **Date:** 27 Sep 2017

**Reviewer:** Ewa Malecka-Tendera

**Reviewer's report:**

The study was performed in relatively small group of girls with TS although they all have gonadotropin levels measured in a certain point of their life. However the size of group and different age at which gonadotropins were measured do not allow to draw definite conclusions about their level fluctuations. I cannot agree with the final statements that FSH measurement can replace in underdeveloped countries karyotyping the girls with short stature. The final diagnosis of TS has to be made on chromosomal analysis and it would be even not ethical to tell the parents that their daughter has TS basing on FSH level. In the abstract this conclusion is even more confusing as there is a contradiction between indication for karyotyping and statement " when resources for chromosome study are limited".

Authors did not perform, in fact, the statistical analysis to prove whether the differences in gonadotropin levels were significantly different than in healthy girls as there is no control group age matched to the girls with TS. Elevated FSH which is dominating LH is a well known fenomenon in girls with gonadal dysgenesis due not only to TS. They may be even elevated to some extend in girls with bening premature thelarche.

Other comments of minor significance - the introduction is certainly too long describing well known facts about TS.

**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.

No

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

No
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.

I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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