Reviewer’s report

Title: Vitamin D receptor and binding protein polymorphisms in women with polycystic ovary syndrome: a case control study

Version: 0 Date: 29 Aug 2019

Reviewer: Pavlina Andreeva-Gateva

Reviewer's report:

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This is a very interesting paper evaluating genotypes and allele frequency of vitamin D receptor and vitamin D protein binding protein in patients with PCOS vs. control. Authors revealed that genetic variations in VDR and VDBP were not associated with increased risk for PCOS. In contrast, the VDR Fok-I polymorphism was associated with testosterone level and the Cdx2 polymorphism with insulin sensitivity in PCOS.

Comments:

1. How the Control group was recruited? Why the size of the Control group is twice as the PCOS group?

2. There is missing description of the workflow of the genetical evaluations. Please, provide.

3. In the Introduction please specify why you decided to evaluate Fok-I, Cdx2, Apa-I, and Bsm-I.

4. In the Discussion - please comment Fok-I, Cdx2, Apa-I, and Bsm-I.

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.

Unable to assess
Are the conclusions drawn adequately supported by the data shown?  
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Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
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I am able to assess the statistics

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

Acceptable

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