Reviewer’s report

**Title:** Pregnancy-induced Cushing’s syndrome with an adrenocortical adenoma overexpressing LH/hCG receptors: a case report

**Version:** 0 **Date:** 31 Mar 2020

**Reviewer:** Swayamsidha Mangaraj

**Reviewer's report:**

Dear Authors,

The report describes a rare case of pregnancy induced Cushing syndrome and the case has been worked up well including hormonal, imaging and pathological characterisation. The manuscript is concise and well written. The manuscript should of interest to general readership of the journal and hence deserves publication.

However I would like to suggest few additional clinical information to be included in case description.

1. Whether any Cushingoid symptoms/signs were noted by patient or her primary clinician in prior pregnancy which resulted in abortion?

2. Was GDM/Hypertension diagnosed during prior pregnancy?

3. Did the patient required glucocorticoid supplementation after adenoma removal as is commonly seen in patients with Cushing syndrome in post op period?

The discussion part is aptly written. However authors can add certain suggested changes for overall improvement of discussion section

1. A para regarding brief discussion of medical (for example use of metyrapone and its response and challenges) and surgical management of these unique cohort of patients (in prior reported cases) should be added. This may include management strategies followed for individuals suffering from pregnancy induced Cushing syndrome (due to either bilateral adrenal hyperplasia or adrenal adenoma)

2. Possible molecular and pathological mechanisms behind pregnancy induced Cushing syndrome are already described by authors. However, another very interesting finding was reported by Plockinger U et al (Reference 15 of manuscript) who have shown the possible role of LH/hCG-stimulated transdifferentiation of LHCGR-positive subcapsular cells/adrenal progenitors and subsequent hormonal production in one of their reported patients. I would suggest to add this to the discussion part also for benefit of readers of your article
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

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.

Not relevant to this manuscript

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

Acceptable

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