Reviewer’s report

Title: Primary Ovarian Angiosarcoma in a 12-Year-Old Girl: a Case Report of an Exceptional Localization in a Context of Limited Resources Country

Version: 0 Date: 09 Jun 2017

Reviewer: Carla Bartosch

Reviewer’s report:

Dear Editor,

Authors describe an ovarian angiosarcoma in a child. The main interest of the case report relies on the rarity of this tumor as well as the young age of the patient. Also, it highlights the diagnostic and patient management difficulties in a developing country. However, the clinicopathological description of the case needs improvement and literature review and discussion are limited.

My comments and suggestions are the following:

- Introduction: Check is references are properly cited. Ref 1 does not mention ovarian angiosarcomas. Conversely ref 2 and 3 are about ovarian angiosarcomas case reports and not angiosarcomas in general as mentioned.

- Clinical exam description: add BMI; page 2 line 48 "frequent" instead of "increased" urination;

- Description of laparotomy findings are lacking: was disease limited to the ovary? At inspection the contralateral adnexa was normal? Uterus, peritoneum and remaining abdominal cavity contents?

- Gross description: right adnexectomy was performed but there is no mention of Fallopian tube. Was the tumor solid and cystic like mention in ultrasound? Page 3, line 7 - "ovarian tumor" instead of "adnectomy"; line 11 - "she" instead of "he"; "no grossly apparent residual ovarian parenchyma"

- In this context sampling is very important given that angiosarcomas can be represent a component of other tumors, like MMMT and, particularly in this patient age, a teratoma. Please provide details about how tumor sampling was performed including the number of sections taken.

- Histological description needs to be improved, namely by describing tumor features like low-power architecture and growth pattern, cellular density, stromal features, cellular morphology, mitotic index... Importantly, angiosarcoma has a propensity for a varied histologic appearance and several growth patterns have been described that mimic other tumors.
If your only two differentials were angiosarcoma and hemangiopericytoma (a controversial entity), how do you justify your immuno panel?

Rather than just reporting positive/negative immunostaining results, describe extension and intensity of staining. Considering your figures, some of your markers appear to be focal/patchy.

Tumor stage and follow-up should be reported.

Discussion is limited and needs focus. Literature review is poor. The discussion on young patient's age could be emphasized by comparing findings with other cases of ovarian angiosarcoma reported in children. It would be interesting to add a discussion on the tumor etiology, considering teratoma as reviewed by Contreras and Malpica (Int J Gynecol Pathol. 2009 Sep;28(5):453-7). Also, when discussing histological features, important pathology papers describing this entity should be cited (Nielsen GP, Young RH, Prat J, Scully RE. Int J Gynecol Pathol. 1997 Oct;16(4):378-82; Nucci MR, Krausz T, Lifschitz-Mercer B, Chan JK, Fletcher CD. Am J Surg Pathol. 1998 May;22(5):620-30). Brief considerations on treatment and survival could also be added (Int J Gynecol Cancer. 2014 Jan;24(1):4-12), following the discussion on financial therapeutic management restrictions.

Figure 1 would benefit from an additional low-power illustration. Resolution is not sufficient to demonstrate that there is a mitosis next to the arrow as mention in the legend.

Figure 2 and 3, describe in the legends what the arrows are indicating.

References 3 and 8 are the same; references 5 and 10 are the same.

**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?**
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.
Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:

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