Reviewer's report

Title: Molecular characteristics of endometrial cancer coexisted with peritoneal malignant mesothelioma: a case report of Li-Fraumeni-like syndrome

Version: 2
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Reviewer: Chen Wang

Reviewer's report:

I read this manuscript with great interest. However, English presentation and a lot of clarifications are needed to make it acceptable.

• Major Compulsory Revisions

1. Sequencing and mutation-calling methods need to be described. I understand it’s a case report, but some supplementary information will be helpful for who are interested to learn details. For examples, “TruSeq Amplicon Cancer Panel” contains how many genes/exons? The whole-gene body or just selected exons or some mutation hotspot regions were sequencing? Similarly, how many probe-sets the Affymetrix Oncoscan molecular inversion probe microarray has? How exactly the CNV was called? I’m also surprised by very low resolution of CNV plots in Fig. 2.

2. I’d suggest authors adding some extended discussion on Li-Fraumeni-like syndrome. How prevalent is? What’s the implication of this case study? Would authors suggest doing mutation panel for all new patients diagnosed? Or, for a selected subset of patients, with what criteria?

3. more clinical information is needed for me to digest this patient case. Tumor grade of endometrial cancer? Histology? How successfully the surgery was done, i.e. residual disease/ debulking status? It’s unusual to see a late stage (IIIC) patient with good response to chemo after 24 months.

4. abbreviations sometimes were used without full names spelled out. (CEA, ER, PR, Ber-EP4), sometimes redundantly explained multiple times (e.g. Em Ca = endometrial cancer). The authors should keep certain consistency, either spelling out at 1st time or explaining all of them in the abbreviation appendix.

5. inconsistent and confusing usages of “plasma” and “blood” in the 1st page. “plasma DNA of the patient were sequenced using targeted …”, and then followed by “TP53 mutations in blood”. Plasma DNA is degraded and germline (blood) is usually of much longer fragment size. Please clarify.

• Minor Essential Revisions

1. CNV presentation could be more informative in fig.2, such as using height of the bar to indicate amplitude of copy number changes?

2. I’d appreciate more details about PMM/endo comparison. To confirm it’s not metastasis, rather, it’s co-occurred tumors at different places. For example, is
there some common genomic abnormalities indicative likely common origin of different tumors?

3. table 1 is not interpretable. Are these column names even comparable? Em Ca and PMM are tumors; Miseq and OncoScan MIP microarray are measuring techniques, and even Miseq is not comparable to OncoScan platform, since authors mentioned it’s some Truseq amplicon panel.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests