Reviewer's report

Title: Ultra-early versus early salvage hormonal therapy for post-prostatectomy biochemical recurrence in pT2-4N0M0 prostate cancer

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Reviewer: Charles Rosser

Reviewer's report:

It is with great pleasure that I reviewed the manuscript by Taguchi et al entitled ‘Ultra-early versus early salvage hormonal therapy for post-prostatectomy biochemical recurrence in pT2-4N0M0 prostate cancer’. In this study the authors are assessing the timing of ADT after biochemical failure after RP. The study is comprised of 2 cohorts: ultra-early and early salvage hormonal therapy. This is a retrospective study and to have 2 groups not randomized, selection bias is always a concern. So how was it determined if a patient had ultra-early vs early salvage ADT? If doctor’s preference then what drove doctor to make the decision? It is interesting that there is a definition for biochemical failure for Japanese. Is this definition widely accepted? What is the biology or natural history that would drive PSA kinetics to be different in Japanese? If true science behind it, then this is great. If not then to communicate amongst our colleagues we should adopt widely held standardized definition based on extremely large cohorts or prospective studies. I understand the concept of ultra early but would it be of benefit to use ultra sensitive PSA as authors remarked. So even if PSA is < 0.2 if a rising PSA profile is seen then this is meaningful. An opportunity may have been missed here. Another issue is the cohort is quite small for such a study (121). Also the researcher acknowledge how salvage XRT based on RTOG and EORTC is standard of care in the US and Europe. Once again why is this not standard of care in Japan? I am sure Asians, specifically Japanese, will be underrepresented. But is the biology different? Are there large RCT from Japan with salvage ADT or salvage XRT? We know that ADT is associated with some real risks related to metabolic syndrome. Perhaps change the tone of the paper to say that this is hypothesis generating and then tell us what the forthcoming hypothesis is. Overall this is a well-written, well-organized manuscript.

TITLE: No issues
ABSTRACT: No issues
INTRODUCTION: No issues
MATERIALS AND METHODS: See above.
RESULTS: No issues
DISCUSSION: No issues
REFERENCES: Great list of references

TABLE: No issues

FIGURES: At 120 and 150 months there are barely any participates. Please end figure at 90 months.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests'