Reviewer’s report

Title: A phase II trial of personalized peptide vaccination in castration-resistant prostate cancer patients: Prolongation of prostate-specific antigen doubling time

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Reviewer: Miriam Reuschenbach

Reviewer’s report:

In this manuscript the authors report on results of personal peptide vaccination of patients with castration-resistant prostate cancer with particular focus on PSA-doubling time as surrogate marker for response. They show correlation of PSA doubling time with IgG and cellular responses against the vaccine peptides, as well as with overall survival.

The vaccine approach used in this study and results from the trial have been reported in other already published manuscripts and here the authors answer a novel question concerning response surrogates other than RICIST criteria that better capture late responses.

The major weakness of the work is the inhomogeneous patient cohort with regard to treatment before and after the peptide vaccination. This precludes clear association of PSA levels/survival with vaccine or immune response as responding patients might have benefited from other therapy and their better condition might have resulted in higher immune responses. However this is respected and discussed by the authors.

Discretionary Revisions: Was there a correlation between antibody and cellular responses and how were PSA and survival in patients with both, IgG and cellular reactivity? Do the authors have more depth analysis of the cellular responses? Apparently routinely unselected PBMC were used, but were there additional test performed evaluating CD4 and CD8 separately?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.