Unlocking the potential with the use of check-point inhibitor immunotherapies in metastatic prostate cancer

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We have read the article published in this journal (December 2018) titled "*Immunotherapy: a glimmer of hope for metastatic prostate cancer*" with great interest (1). We wish to add on to the content of the article. The article being a comprehensive and well written review article focuses upon all aspects of immunotherapies in relation to prostate cancer—ranging from the use of anti-tumor vaccines, to the use of checkpoint inhibitors. We are of the opinion that future progress in the treatment of metastatic prostate cancer could be found in the combination of immune checkpoint inhibitor therapies with other modalities including chemotherapy, radiotherapy and hormonal therapy.

Metastatic prostate cancer is a malignancy which is often associated with prolonged survival, even if it is seldom curable. Effective therapies currently in vogue include hormonal therapy and chemotherapy, which offer varying durations of progression free survival before ultimately failing.

The advent of checkpoint inhibitors such as the PD-1 inhibitors (nivolumab, pembrolizumab) and PD-L1 inhibitors (atezolizumab, durvalumab) have shown early promise in metastatic prostate cancer (2).

We propose that checkpoint inhibitors in particular have a great potential in the treatment of metastatic prostate cancer due to the following reasons:

(I) Metastatic prostate cancer which has progressed after various lines of chemotherapy and radiotherapy is likely to have a high tumor mutational burden, thus rendering it sensitive to checkpoint targeting immunotherapies such as PD-1/PD-L1 inhibitors (3);

(II) The use of PD-1/PD-L1 inhibitors with focal irradiation is likely to elicit an abscopal effect leading to reduction in the overall tumour load (4).

Thus, we propose that research focussing upon the use of immune checkpoint inhibitors in the treatment of metastatic prostate cancer would be a worthwhile exercise, especially in the treatment of patients who are likely to high tumor mutational burden as a result of prior radiotherapy.

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

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