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EDITORIAL

Current Management and Future Treatment Strategies for Patients with Metastatic Hormone-Sensitive Prostate Cancer

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Metastatic hormone-sensitive prostate cancer (mHSPC) is a heterogeneous disease state that requires comprehensive and personalized management [1]. Androgen deprivation therapy (ADT) alone has long been the standard of care for mHSPC [2, 3]. However, recent advancements in treatment and imaging modalities have transformed the management landscape of mHSPC, making it even more complex.

One of the key advancements in the treatment of mHSPC has been the introduction of combination systemic therapies, such as the addition of docetaxel and/or androgen receptor signaling inhibitor (ARSI) to ADT and the incorporation of local therapy for the low-volume disease [4–8]. These approaches have been shown to significantly improve survival and delay disease progression in patients with mHSPC [9].

Additionally, the diagnosis, monitoring, and management of mHSPC have undergone significant change with the introduction of prostate-specific membrane antigen (PSMA) positron emission tomography (PET) imaging; this is particularly true for the metachronous mHSPC [10, 11]. For prostate cancer, PSMA-PET imaging offers a more sensitive and specific molecular imaging modality that enables more accurate diagnosis and potential individualized treatment strategies [1]. Furthermore, recent studies have demonstrated the effectiveness and safety of metastasis-directed therapy (MDT) guided by PSMA-PET findings in patients with oligometastatic disease [12, 13].

Another important aspect is genomic profiling, which has also emerged as a potentially important tool in the management of mHSPC. By analyzing the genetic makeup of patient's tumor, clinicians can identify molecular targets for existing personalized treatments; some of them are still under investigation for men with mHSPC, but have already been approved in metastatic-castration-resistant prostate cancer (mCRPC) [1, 14]. For example, genomic profiling can identify mutations in genes such as BRCA2 and ATM, which are associated with higher response rate to certain therapies such as PARP inhibitors [14–16].

In closing, with the introduction of new combination systemic agents, local therapies, genomic profiling, and imaging modalities, the therapy of mHSPC is rapidly evolving. These advancements already offer unique opportunities to optimize patients outcomes and improve the quality of life for men with mHSPC. Future developments will aim to improve outcomes and lessen treatment-related toxicity. As such, clinicians need to stay up-to-date on the latest developments in this field to to ensure that patients receive the most effective therapies available, which should be based on an individualized strategy tailored to each patient's specific traits and disease status.

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