Current management of advanced and castration resistant prostate cancer.

Gomella LG, Petrylak DP, Shayegan B.

Abstract

INTRODUCTION: Newer approaches to the management of advanced prostate cancer have rapidly evolved. While basic androgen deprivation remains as the first line in newly diagnosed hormone naïve metastatic prostate cancer, the agents used and strategies followed have undergone significant changes. Numerous new agents such as sipuleucel-T, abiraterone, enzalutamide, cabazitaxel and radium 223 have all been approved since 2010 to treat metastatic castration resistant prostate cancer (CRPC). New imaging techniques to detect advanced disease such as F-18 PET, 11 C-choline PET and other modalities are becoming available. The concepts of "bone health" and the management of side effects related to androgen deprivation therapy are also gaining attention as men are being treated with longer courses of androgen deprivation. Understanding the theory behind these new agents and management approaches while focusing on the practical clinical considerations are essential to improve outcomes in advanced prostate cancer.

MATERIALS AND METHODS: A review of the current state of the art in the management of advanced and castration resistant prostate cancer presented in this Canadian Journal of Urology International supplement was performed. Key findings are summarized and presented along with critical updates based on recent publications and meeting presentations.

RESULTS: Key concepts identified in the management of advanced prostate cancer included the new understanding of prostate cancer based on translational discoveries, applications of various hormonally based strategies in advanced disease including traditional and recently approved agents. The use of new imaging modalities to identify metastatic disease, immunotherapy approaches and discussions of sequencing and which new agents are likely to be available in the future in the management of CRPC were identified. Bone targeted strategies are also addressed in the setting of androgen deprivation and metastatic disease.

CONCLUSIONS: The management of men with advanced prostate cancer has become more multidisciplinary as treatment options have expanded. As the use of these agents and new strategies expand, urologists, medical oncologists and radiation oncologists must all become familiar with this rapidly changing field in order to maximize the outcome of patients with advanced and castration resistant prostate cancer.