Androgen Deprivation Therapy for Prostate Cancer -A US Perspective

Department of Urology, UCSF Helen Diller Family Comprehensive Cancer Center
University of California, San Francisco, USA
Peter Carroll, Mathew Cooperberg

Prostate cancer is an androgen sensitive disease. [1] Androgen deprivation therapy (ADT) is indicated in those with metastatic disease and in those where such disease is eminent. It also improves outcomes in those with intermediate and high - risk, non - metastatic disease, who receive radiation. The indications for ADT as primary therapy in those with non - metastatic disease has not been well defined. [2]

In the US, ADT is used to treat all stages of prostate cancer, although its use increases with cancer risk category as assessed by cancer grade, T stage, serum PSA and extent of disease on biopsy. [3] The risk of both metastases and death in men with prostate cancer can be predicted. [4] Outcomes (cause - specific and overall survival) to ADT can be predicted. [4] Although efficacious and necessary in some, there are concerns that such therapy is associated with unique side effects such as loss of bone mineral density, increased risk of diabetes, skeletal fracture and other metabolic events. [5] Predicting and managing such side effects is important, as certain populations of patients may be more vulnerable than others. In addition, more novel forms of therapy such as intermittent androgen deprivation, 5 alpha - reductase therapy and novel secondary androgen deprivation therapy are likely to become more commonly used. [6] [7] [8]