Intermittent androgen deprivation at least as effective as continuous androgen deprivation

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'Potential Benefits of Intermittent Androgen Suppression Therapy in the Treatment of Prostate Cancer: A Systematic Review of the Literature' is the title of an article by P-A. Abrahamsson in the January issue of *European Urology*, the official journal of the European Association of Urology. The author evaluates available evidence regarding the efficacy and tolerability of intermittent androgen deprivation (IAD) and assess its value in the treatment of prostate cancer (PCa).

Prostate cancer (PCa) is the second most common male cancer worldwide and the most frequently occurring in Europe (20.3% of the total in 2006). Androgen-deprivation therapy (ADT) has progressed since 1941 when surgical castration was shown to improve PCa outcomes. The well-known side effect profile of ADT has significant quality-of-life implications such as sexual dysfunction, hot flushes, fatigue etc. Furthermore, it appears that androgen suppression causes a change in stem cells from an androgen-dependent to an androgen-independent phenotype. Because this progression to androgen independence is thought to begin early after treatment initiation, stopping androgen deprivation prior to this change occurring should restore apoptotic potential and help tumour cells remain sensitive to re-initiating treatment.

The strategy behind IAD, therefore, is to alternate androgen blockade with treatment cessation, allowing hormonal recovery between treatment periods, thus potentially improving tolerability and quality of life.

The author wishes to evaluate available evidence regarding the efficacy and tolerability of IAD and assess its value in the treatment of PCa. Key phase 2/3 clinical trials of IAD in PCa published within the last 10 years were identified on Medline using different search terms.

The conclusions were that IAD seems to be as effective as continuous androgen deprivation while showing tolerability and quality of life advantages, especially recovery of sexual potency. IAD has been a treatment option for >20 years and the EAU considers that its status should no longer be regarded as investigational.

However, QoL data are surprisingly limited given that this, rather than survival, is the key driver for IAD and considering the length of time this approach has been under evaluation.

Based on available evidence and general clinical opinion, IAD is a valid treatment option in nonmetastatic PCa cases, i.e. patients with locally advanced disease with or without lymph node involvement and those experiencing relapse following curative treatment. These patients have a higher chance of survival than those with more advanced disease, making QoL a key consideration. Full results from phase 3 trials, which include both locally advanced and metastatic patients, will further clarify target populations.

IAD has come of age, and many clinicians believe it has earned its place in the management of PCa; however, there are still insufficient data to determine whether IAD has the potential to prevent or reverse the long-term complications associated with ADT.

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