The effects of osaterone acetate on clinical signs and prostate volume in dogs with benign prostatic hyperplasia

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Abstract

A clinical trial was performed to evaluate the therapeutic efficacy of osaterone acetate (OSA) in the treatment of benign prostatic hyperplasia (BPH) in dogs. Osaterone acetate (Ypozane, Virbac) was administered orally at a dose of 0.25 mg/kg body weight once a day for seven days to 23 dogs with BPH. During the 28-day trial, the dogs were monitored five times for their clinical signs and prostate volume. The OSA treatment promoted rapid reduction of clinical scores to 73.2% on day 7 and to 5.9% on day 28 (p<0.05). Osaterone acetate induced the complete clinical remission in approximately 83.0% of the dogs on day 28. The prostate volume regressed to 64.3% of the pretreatment volume after two weeks of the treatment (p<0.05) and to 54.7% at the end of the trial (p<0.05). In conclusion, OSA quickly reduced clinical signs and volume of the prostate glands in dogs with BPH.

Key words: dogs, benign prostatic hyperplasia, osaterone acetate, prostate volume

Introduction

Benign prostatic hyperplasia (BPH) is the most common disease of the prostate gland in dogs. More than 80% of intact male dogs older than 5 years exhibit BPH, and prostatic volume in affected dogs is 2 to 6.5 times greater than that in normal dogs of similar weight (Johnston et al. 2000, Parry 2007, Smith 2008). Medium- and large-sized breeds are prone to the development of BPH. This condition is associated with the proliferation (hyperplasia) and increased cell volume (hypertrophy) of the prostatic tissue.

Benign prostatic hyperplasia begins as glandular hyperplasia and subsequently transforms to cystic hyperplasia with the formation of multiple small cysts within the prostatic parenchyma. The etiology of BPH is not fully understood, but dihydrotestosterone (DHT) is known to play a key role in its pathogenesis. Testosterone is the major androgen secreted from the testes but DHT, formed from testosterone by the enzymatic action of 5-α-reductase in prostatic epithelial cells, is the main androgen that mediates the development and growth of the prostate. With age, the concentrations of DHT and its receptors increase in prostatic tissue (Johnston et al. 2000, Gobello and Corrado 2002, Andriole et al. 2004). Other androgenic and/or...