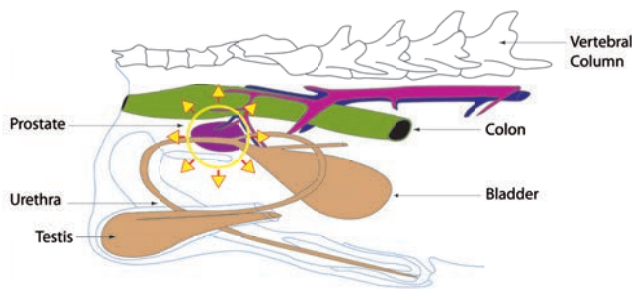


Canine Benign Prostatic Hyperplasia

Benign prostatic hyperplasia (BPH) is the most common canine prostatic disorder, with almost 100% of sexually entire dogs developing enlargement of the prostate with aging.^(1, 2) BPH can start as early as 2 years of age⁽³⁾ and by the age of 5 more than 50% of entire dogs will have some degree of BPH.⁽⁴⁾

BPH is characterised by both hyperplasia, increase of the number of cells and hypertrophy, increase in cell size. Intraparenchymal fluid cysts can also develop in association with hyperplasia.⁽³⁾

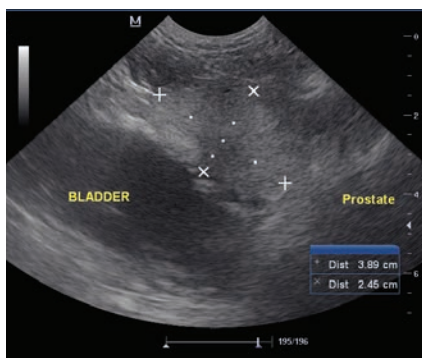


Pathogenesis of BPH

The testosterone metabolite, dihydrotestosterone (DHT) is believed to be important in promoting hyperplasia of the prostate. The pathogenesis of BPH is thought to involve an altered androgen:estrogen ratio resulting in an increased androgen receptor expression in the prostate and increased sensitivity to DHT. This imbalance occurs when androgen levels fall as the dog ages.^(2,3)

Clinical signs

- Discharge from penis
- Haematuria
- Stranguria
- Constipation
- Tenesmus
- Ribbon like or fattened stools
- Infertility



Courtesy of Dr Steven Metcalfe, Applecross Veterinary Hospital.

Diagnosis

Diagnosis is suggested by physical and historical findings and by a nonpainful, symmetrically enlarged prostate on digital palpation. Radiology and ultrasonography can be used to confirm enlargement.

Cytological examination of massage or ejaculate fluid reveals mild inflammation without evidence of infection or neoplasia.

Definitive diagnosis requires biopsy which is rarely performed as a presumptive diagnosis is strongly supported by less invasive methods and the absence of more sinister disease.⁽³⁾

Treatment options

The goal of treatment is to reduce the size of the prostate and relieve clinical signs. Treatment options include:

Surgical castration

In older non breeding animals surgical castration has typically been the treatment of choice. Surgical castration results in prostatic involution within 6-12 weeks.⁽⁴⁾ Clinical signs generally resolve before involution is complete.⁽⁴⁾

Suprelorin

Suprelorin should be considered when anaesthetic or surgical risk is high, or if owners do not wish their dog to undergo surgical castration.

Suprelorin contains deslorelin, a gonadotrophin releasing hormone (GnRH) agonist. The use of GnRH agonists is considered a modern treatment for BPH.⁽⁵⁾

Studies have shown that treatment with Suprelorin has resulted in a significant decrease (>50%) in prostatic size and clinical recovery within 6 - 8 weeks^(5, 6, 7) postimplantation. Clinical signs can be expected to improve within 15 days following treatment.

Other medical treatments

5 α reductase inhibitors may be considered if the dog is intended for breeding.⁽³⁾ None are currently registered for use in dogs in Australia. Progestagens, e.g. delmadinone (Tardak) have been used but are no longer commercially available.

Asymptomatic prostate enlargement

Asymptomatic BPH may progress and predispose the animal to more serious conditions such as prostatitis, prostatic cysts and prostatic abscesses.⁽⁸⁾ Patients with evidence of BPH without clinical signs should regularly be monitored i.e. every 6-12 months for disease progression or complications.^(8, 9)

Suprelorin®

All the benefits of castration without surgery

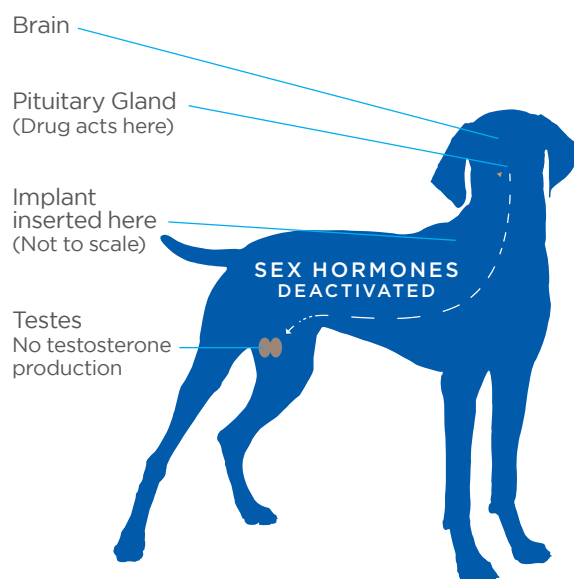
Registered for control of BPH in dogs

Mode of action

- Deslorelin is a GnRH super-agonist⁽¹⁰⁾
- Sustained release induces a down-regulation of GnRH receptors
- Blocks the production of the sex hormones (LH, FSH)
- Leads to progressive testosterone suppression

Clinical effects

- Suppression of testosterone within 9-20 days after initial implantation⁽¹¹⁾
- Significant decrease (>50%) in prostatic size 6 - 8 weeks post implantation^(5, 6, 7)
- Clinical signs of BPH improve within 1-15 days following treatment⁽⁷⁾
- Testosterone maintained below a detectable level for a minimum of 6 months (4.7mg) or 12 months (9.4mg)



Mode of action



For more information on Suprelorin contact

technical@virbac.com.au
1800 242 100
au.virbac.com

1. Smith, J. (2008). Canine prostatic disease: A review of anatomy, pathology, diagnosis, and treatment. *Theriogenology*, 70(3), pp.375-383.
2. Verstegen, J. (2002). Management of Prostatic Disorders. In: 27th WSAVA Congress.
3. Ettinger, S., Feldman, E. and Côté, E. (2005). Textbook of veterinary internal medicine. 6th ed. Elsevier Saunders, pp.1809-1819.
4. England, G. and Heimendahl, A. (2010). BSAVA Manual of canine and feline reproduction and neonatology. 2nd ed. England: British Small Animal Veterinary Association, pp.202-206.
5. Nizański, W., Levy, X., Ochota, M. and Pasikowska, J. (2014). Pharmacological Treatment for Common Prostatic Conditions in Dogs - Benign Prostatic Hyperplasia and Prostatitis: an Update. *Reproduction in Domestic Animals*, 49, pp.8-15.
6. Jurczak, A., Domosławska, A., Janowski, T. and Zdunczyk, S. (2010). Treatment of benign prostatic hyperplasia in dogs using GnRH agonist implant Suprelorin - preliminary results. In: 7th EVSSAR Congress.
7. Ponglowhapan, S. and Lohachit, C. (2010). Clinical use of GnRH agonist deslorelin in benign prostatic hyperplasia in dogs. In: 7th EVSSAR Congress.
8. Romagnoli, S. (2007). How I treat benign prostatic hyperplasia in the dog. In: SEVC. Barcelona.
9. Sontas, B., Milani, C., Mollo, A. and Romagnoli, S. (2010). Blood dripping from the penis of a German Shepherd dog. *Australian Veterinary Journal*, 88(6), pp.242-244.
10. Padula, A. (2005). GnRH analogues—agonists and antagonists. *Animal Reproduction Science*, 88(1-2), pp.115-126.
11. Data on file. Trigg T.E. (2002), Trial report PT14: Suprelorin clinical study report