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Management and prevention of reproductive diseases in ferrets
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Reproductive disease in ferrets is not commonly seen in practice as the great majority of (male and female) ferrets are neutered. In the intact male ferret (hob), cryptorchidism, preputial gland neoplasia, and testicular tumors may be seen, while in the neutered hob prostate enlargement and prostatic cysts are the predominant reproductive diseases to be found. Prostatic disease may frequently be seen in conjunction with adrenal gland tumors. In the intact female ferret (jill), hyperestrogenism due to persistent estrus is most commonly found. Pancytopenia is a well-known, potentially life-threatening sequela to the high estrogen levels. In addition, hydro/mucometra and vaginitis may also be seen. To prevent the abovementioned conditions, owners often choose to have their ferrets neutered. In hobs, this procedure also helps prevent the malodorous musk production by the sebaceous glands during the breeding season. However, surgical neutering in ferrets has been associated with an increased risk of hyperandrogenism due to adrenal gland hyperplasia or neoplasia.\(^1\) As a result, alternative methods have been investigated, with slow-release gonadotropin releasing hormone (GnRH) analogue (deslorelin) containing implants (Suprelorin, Virbac, Nice, France) being studied most extensively. Under laboratory conditions, a 9.4 mg deslorelin-containing implant was found to induce all castration-related effects (i.e. suppression of plasma FSH and testosterone concentrations, reduction of the musky odor and testis size, cessation of spermatogenesis), thereby being considered a suitable alternative for surgical intervention.\(^2\) Subsequently, the duration of effectiveness, owner satisfaction and side effects of this implant were investigated in a cohort of 130 intact male and female pet ferrets. The mean duration of effectiveness of the implant was 1012 ± 38 days, with no gender difference present. Over 90% of owners were pleased with the effects of the implant, and only minor local side effects were noted, which all resolved within a week without treatment. Based on the minimum duration of effectiveness, it was advised to place a new implant on a yearly basis to guarantee continuous gonadal suppression, although bi-annual replacement may be sufficient in the majority of ferrets.\(^3\)

Whether the use of deslorelin containing implants will prevent the development of adrenal tumors in ferrets is currently under investigation. Recently, an experimental GnRH-vaccine has been shown to decrease the incidence of adrenal tumors in ferrets from 75% to 25%. This suggests that deslorelin containing implants may also help reduce (but not eliminate) the incidence of adrenal gland disease