Oral presentations

Efficacy of 0.02% tacrolimus in dogs with keratoconjunctivitis sicca in which topical cyclosporine was ineffective: preliminary results

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OBJECTIVES

For thirty years topical cyclosporine has been used as a lacrimostimulant agent in cases of canine keratoconjunctivitis sicca or dry eye. In some cases this drug does not result in adequate increase in tear production either at 0.2% in Optimmune or in the 2% solution as originally reported. There is anecdotal evidence that tacrolimus, a similar drug to cyclosporine but with a more powerful immunomodulatory action, is more efficacious but until

now we have no objective evidence that this drug works where cyclosporine fails. Here we sought to use 0.02% tacrolimus (Bova Ltd, UK) in dogs with KCS where topical cyclosporine was ineffective.

METHODS

10 dogs with KCS where topical cyclosporine at 0.2% in Optimmune had failed to improve tear production were given 0.02% tacrolimus and their Schirmer tear tests (STT) were measured before treatment and over a one month period on tacrolimus. The data before and after tacrolimus treatment were compared with a Mann Whitney U test as the data were non-normally distributed when evaluated using the Shapiro-Wilk test.

RESULTS

The dogs were of varying breeds genders and ages but all eyes evaluated had STT below 5mm/min before treatment. The average STT before treatment was 2.8 ± 1.2 mm/min and at 1 month after treatment was 13.3 ± 1.6 mm/min this increase in tear production being significant at $p = 0.00018$.

STATEMENT (CONCLUSIONS)

These preliminary results suggest that topical ophthalmic tacrolimus at 0.02% is effective to stimulate tear production in dogs with KS where topical cyclosporine has not been efficacious

Intraocular pressure reduction in canine eyes with glaucoma treated by implanting a transcorneal aqueous drainage device

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OBJECTIVES

Intraocular pressure (iop) reduction in glaucomatous canine eyes by use of a nanotubular transcorneal implant has previously been reported. Lowering of iop was documented in 9 dogs from a pre-surgical mean of 63.3 ± 17.9 mmHg to 13.7 ± 2.5 mmHg immediately post-operatively and 20.0 ± 5.3 mmHg after 6 weeks. Here we

report iop reduction after implantation in a further 12 eyes followed for up to one year.

METHODS

IOP was measured using a Tonovet rebound tonometer in 12 eyes of 10 dogs with primary glaucoma. A Brown nanotubular transcorneal drainage device was implanted under general anaesthetic and iop measured immediately after surgery and then at periods after surgery up to one year. Aqueous drainage onto the ocular surface was assessed using the Seidel test. Ocular comfort was assessed at each examination and through questioning owners about their dog's behaviour.

RESULTS

IOP values pre-surgically (mean $\pm$ standard deviation) were 63.8 ± 17.4 mmHg. Immediately after implantation iop dropped to 13.0 ± 2.1 mmHg. One day post-operatively iop was 15.3 ± 3.1 mmHg. One week later iop was 21.1 ± 13.0 mmHg but 4 eyes required an injection of tissue plasminogen activating factor to combat fibrin blockage of the device. At 2 months iop was 16.6 ± 4.3 mmHg. 6 months and one year later iop was 19.3 ± 5.4 mmHg and 18.0 ± 2.7 mmHg respectively. Four eyes

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