



Evaluation of preservative-free cross-linked sodium hyaluronate eye drops (Lacri+®) on dry eyes in dogs: a multicentric field study.

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Objectives

Dry eye is a common condition in companion animals affecting up to 1 % of dogs. It is frequently managed by administering topical medications (ciclosporine or tacrolimus) and eye lubricant.

This multicentric field study evaluated the interest of a new preservative-free eye protector in dogs with dry eyes.

Methods

Animals: Eighteen dogs with low tear production (Schirmer tear test (STT) \leq 10mm) and clinical signs of dry eyes were included.

Product: A preservative-free solution of 0.4% sodium hyaluronate cross-linked with urea (Lacri+®, MP Labo, France) was administered twice daily for 30 days.

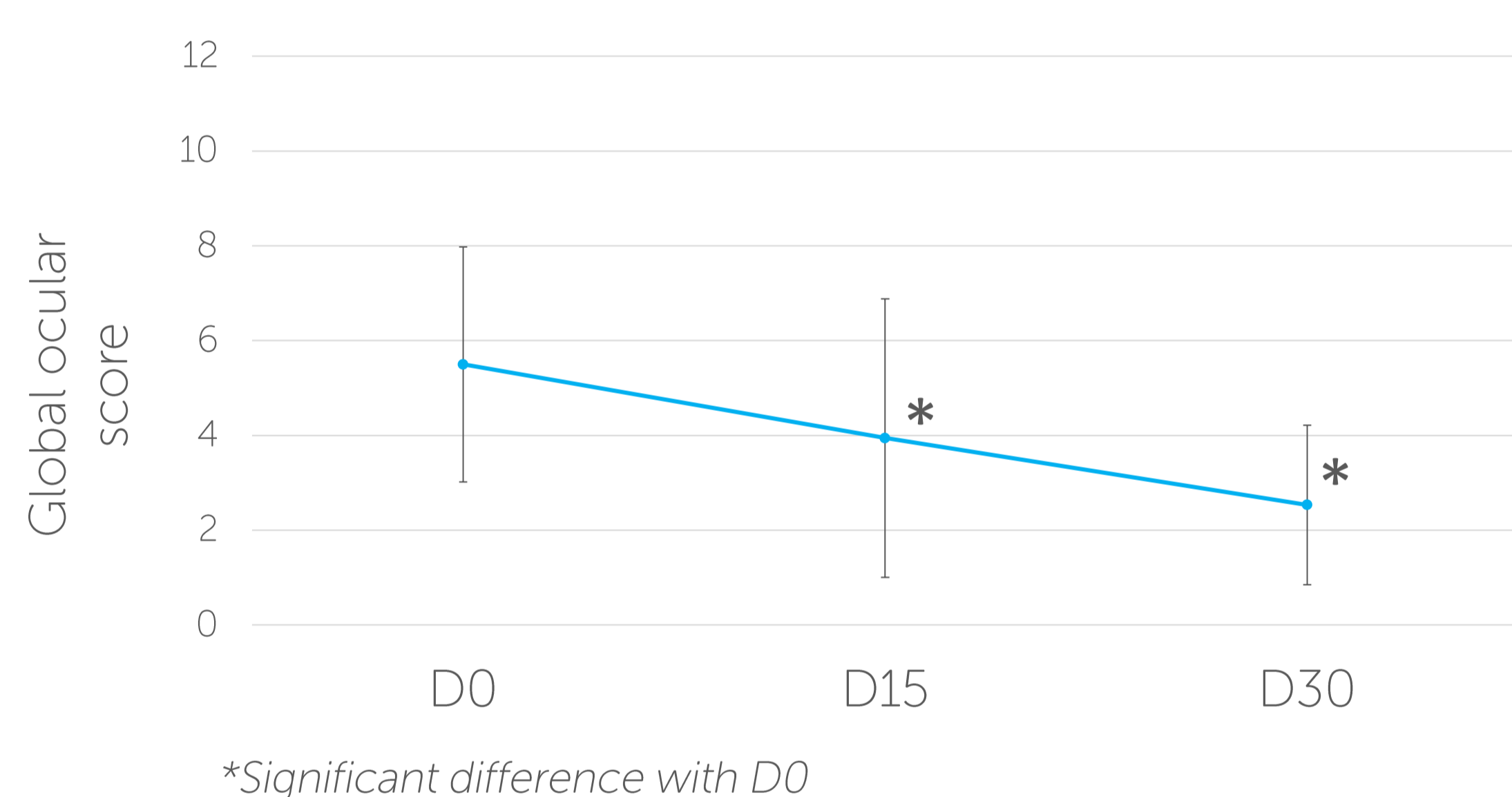
Evaluation: A full ophthalmic examination was performed on D0, D15 and D30. Global ocular score (GOS) was obtained from the sum of 4 clinical signs (conjunctival hyperaemia, ocular discharge, ocular irritation, corneal opacification) rated from 0

to 3 and tear production was measured using the STT. Quality of life (QoL) and global efficacy were respectively assessed by owners and veterinarians.

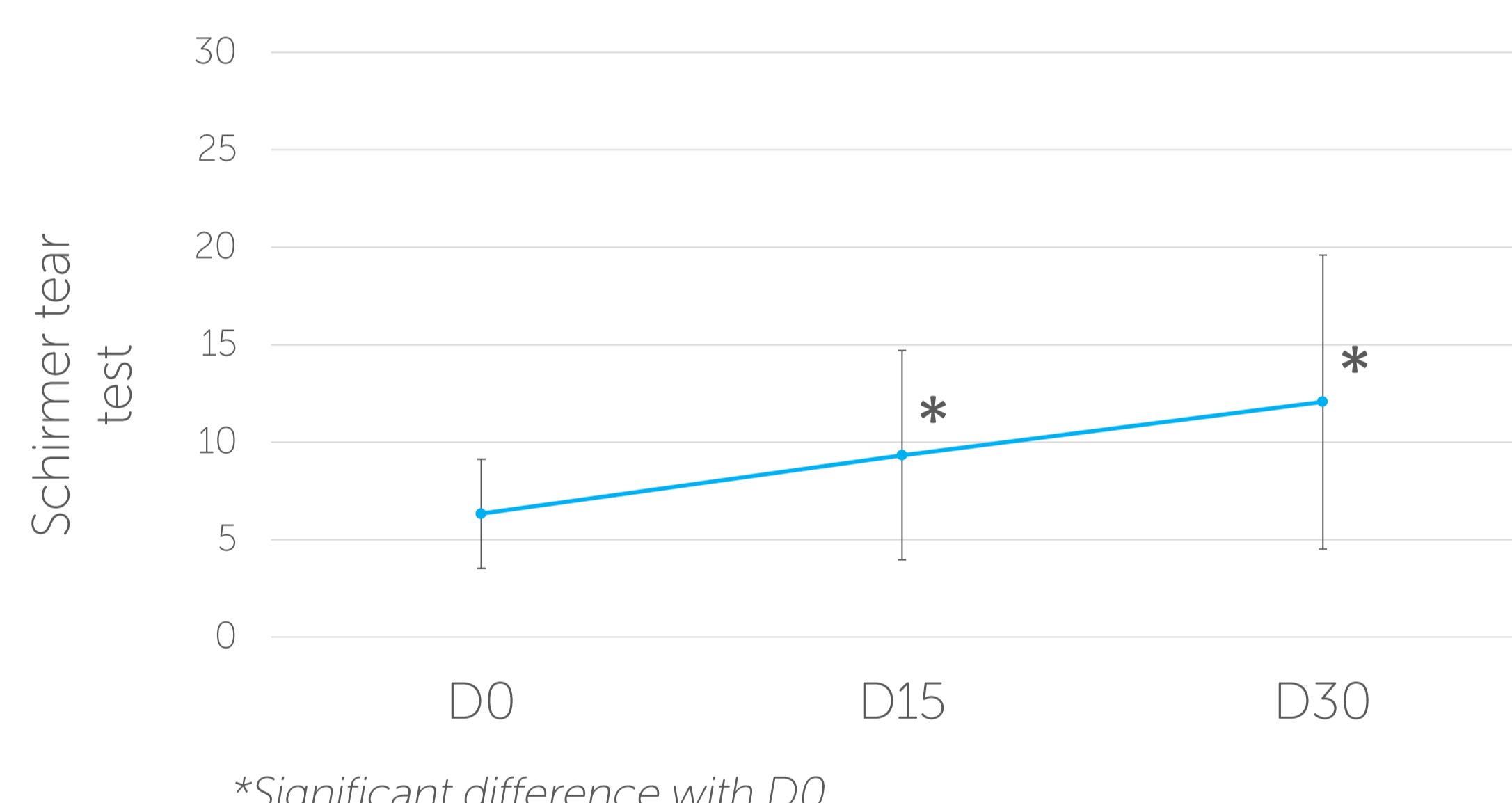
Statistical analysis: Quantitative valuables were analysed with a generalized linear mixed-effects model. Post-hoc pairwise comparisons were performed using the Fisher's least significant difference (LSD) procedure. The level of significance was set at $p < 0.05$. For the dogs presenting a bilateral involvement, only the right eye was considered

Results

A significant improvement of the GOS was observed on D15 and D30 with 30% and 55% VS D0, respectively.



STT was significantly increased on D15 and D30 VS D0.



Summary:

- 11 breeds of dogs are represented, with Yorkshires (28%) being the most common.
- 12 dogs (67%) had bilateral involvement at inclusion. 6 dogs (33%) had unilateral damage.
- The mean time from clinical onset to visit at D0 was 95.6 (\pm 181.1) days [3 - 712 days].
- The product was well tolerated.
- QoL was significantly improved on D15 and D30.
- Investigators considered the product as effective in 93% of cases on D30.
- All individual clinical scores, but corneal opacification, were significantly improved on D30.
- Tear production was considered as normal in 30% and 60% of dogs on D15 and D30, respectively.



English Cocker Spaniel with previous reactions to the use of eye drops with preservatives.

On D0, the GOS was 4/12 (conjunctival hyperemia 1/3, eye discharge 2/3, discomfort 1/3, corneal opacity 0/3).

After a month of preservative-free eye drops instillations, the GOS dropped down to 1 (conjunctival hyperemia 1/3, eye discharge 0/3, discomfort 0/3, corneal opacity 0/3).

Conclusion

The use of a preservative-free eye protector (Lacri+®) could be an interesting option for dry eyes in dogs by significantly improving clinical signs and tear production.

