

Tips for a Brow Suspension Technique in Dogs

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Appropriate positioning of skin incisions is necessary to preserve eyelid function.

In the Literature

Cairó M, Leiva M, Costa D, Peña MT. Modified brow suspension technique for the treatment of pseudoptosis due to redundant frontal skin in the dog: a retrospective study of 25 cases. *Vet Ophthalmol.* 2018;21(2):112-118.

FROM THE PAGE ...

Although they may be cosmetically desirable in certain dog breeds, excessive periorcular, facial, and forehead skin and skin folds may be associated with significant ocular surface damage, which can lead to varying degrees of vision loss and discomfort. Surgical intervention is frequently indicated in affected patients, and multiple surgical procedures have been described.¹⁻³ The least invasive procedure that also preserves desirable breed-related cosmetic features, as with the brow suspension technique described in this retrospective study, should ideally be used.

This modification of a previously described procedure⁴ uses sutures to create a sling deep to the frontalis muscle that, when tightened, pulls the rostral-most forehead skin caudally, alleviating downward force on the eyelids (ie, pseudoptosis) and creating a forehead and brow “lift.” The sling is created by anchoring monofilament, nonabsorbable sutures to the frontal bone periosteum with 3 parallel skin incisions. The most rostral suture should be made over the dorsal orbital rim, with the next 2 sutures made caudal to each of the preceding sutures. Multiple slings can be placed above each eye depending on the degree of pseudoptosis; however, it is important to note that additional procedures to correct entropion may be necessary, as the sling does not directly impact the position of the eyelid margin relative to the globe. In the original procedure,⁴ the skin incisions were more rostrally located, with the first incision located 2 mm caudal to the upper eyelid margin. The sling was also created using a polyester mesh implant rather than sutures alone.

Of the 25 dogs treated in this study, 23 were shar-peis, shar-pei crossbreed dogs, or English bulldogs. All eyes also required a Hotz-Celsius procedure on one or both lids to correct entropion. Short-term complications included incomplete correction of pseudoptosis and suture breakage. The only long-term complication was skin abscess formation in one patient 2 years postoperatively. Cosmetic and functional success was reported in all patients for the duration of follow-up (up to 84 months). Concerns for lagophthalmos (ie, incomplete blinking ability) noted in the original procedure⁴ were avoided through caudal relocation of skin incisions.

... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Appropriate positioning of skin incisions is necessary to preserve eyelid function. Placement too close to the upper eyelid margin may decrease upper eyelid mobility necessary for complete blinking.
- 2** This procedure may not address positional eyelid margin abnormalities; thus, separate surgical corrective procedures may be needed.
- 3** This procedure is likely most effective in dogs without excessive skin around the eyes and head created by large lips, cheeks, and ears, as the weight of excess skin may counteract the sling's effects.

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