

Surgical correction of congenital ocular and nasal dermoids and third eyelid gland prolapse in related Burmese kittens

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Congenital dermoids have been reported in a variety of mammalian species but are rarely reported in cats (1,2). A previous report described epibulbar dermoids in Birman kittens that were always unilateral and in the lateral canthus (1). The kittens described herein had both conjunctival dermoids and dermoids of the external nares. Unlike the previous report, some kittens had bilateral involvement.

Burmese kittens from three separate but related litters 8–16 weeks of age were diagnosed as having congenital ocular anomalies. One kitten had a prolapsed gland of the third eyelid. Another kitten, from a different litter, had a dermoid of the palpebral conjunctiva near the lateral canthus. Kittens from a third litter had bilateral or unilateral dermoids of the external nares, and of the bulbar conjunctiva. The dermoids appeared as discrete, round skin masses 3–6 mm in diameter and were covered with hair of the same color as the rest of the cat's coat. Because of irritation to the cornea from the hair of some of the dermoids, excision was advised. Surgery was also advised for removal of the nasal dermoids for aesthetic reasons and to relieve mild inspiratory dyspnea in one kitten.

Surgery was performed when the kittens were 12–16 weeks of age. Halothane was used in the three older, larger kittens and isoflurane in five younger, smaller kittens. All the kittens were given a preanesthetic combination of meperidine (Demerol, Winthrop, Aurora, Ontario), atropine, and acepromazine (Atravet, Ayerst, Montreal, Quebec). In the smallest kittens, endotracheal tubes were fashioned from a sterile disposable urinary catheter (Rob-Nel 10 Fr., Argyle Inc., St. Louis, Missouri, USA) because available standard endotracheal tubes were too large.

The eye was prepared for surgery by washing with povidone iodine diluted 1:50 with sterile saline and rinsed with balanced salt solution (BSS, Alcon Canada, Mississauga, Ontario). Surgery was performed with the assistance of an operating microscope (Weck Instruments, Markham, Ontario). Positioning of the globe was maintained by episcleral sutures of 4/0 silk. Sharp dissection with tenotomy scissors was used to separate the dermoid tissue from the conjunctiva. The conjunctiva was not sutured if the conjunctival defect was small (3–4 mm diameter) and the lateral canthus was not involved. In kittens where the palpebral conjunctiva of the lateral canthus was involved, or where the lateral canthus itself was involved with the dermoid, a lateral canthoplasty was done and closed with 5/0 polyglactin suture (Vicryl

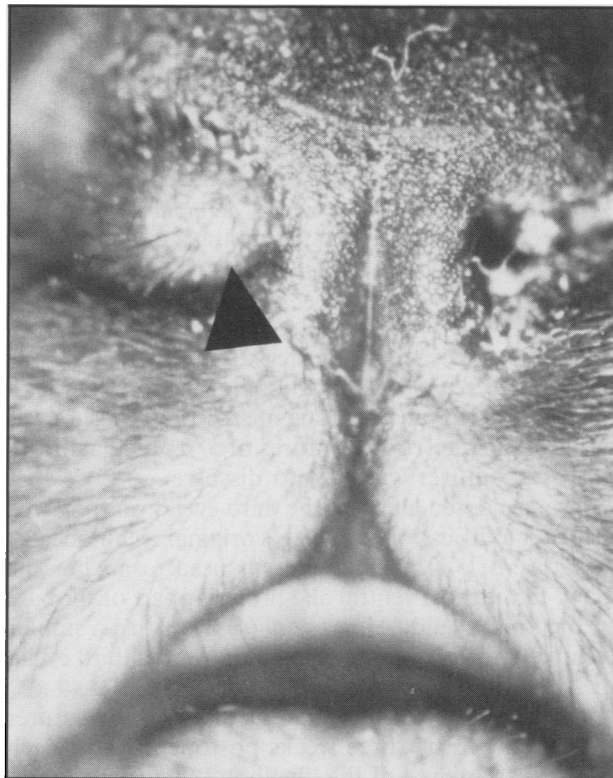


Figure 1. Close-up view of a dermoid of the right naris in a nine-week-old Burmese kitten.

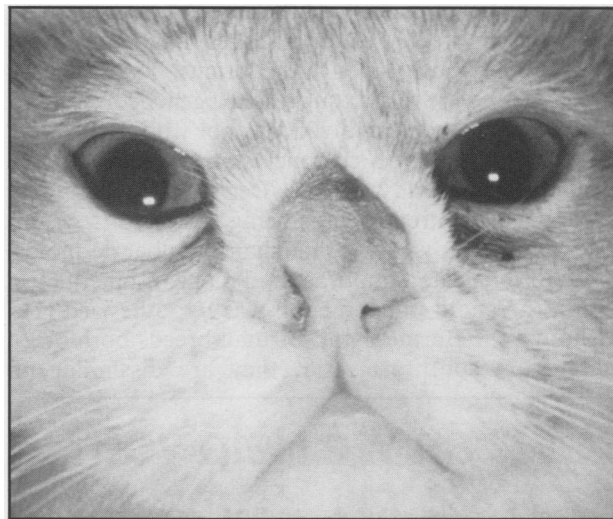


Figure 2. A 16-week-old kitten related to that in Figure 1 but with a less obvious dermoid in the right naris.

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790G, Ethicon, Peterborough, Ontario). Gentamicin sulfate drops (Gentocin, Schering Canada, Pointe Claire, Quebec) were used postoperatively q6h for seven days.

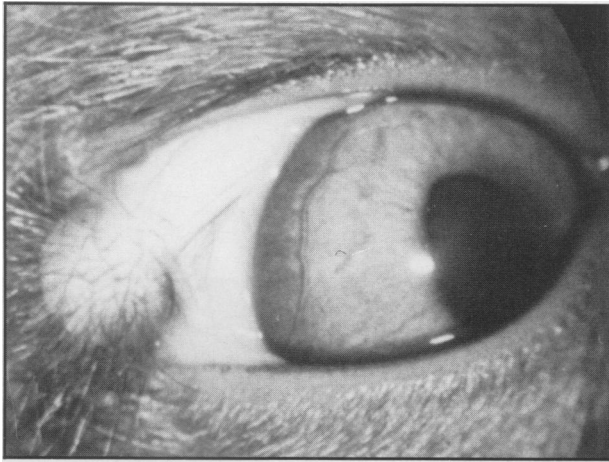


Figure 3. Burmese kitten with a dermoid of the lateral canthus of the right eye. This demonstrates the potential for corneal trauma caused by hairs of the dermoid.

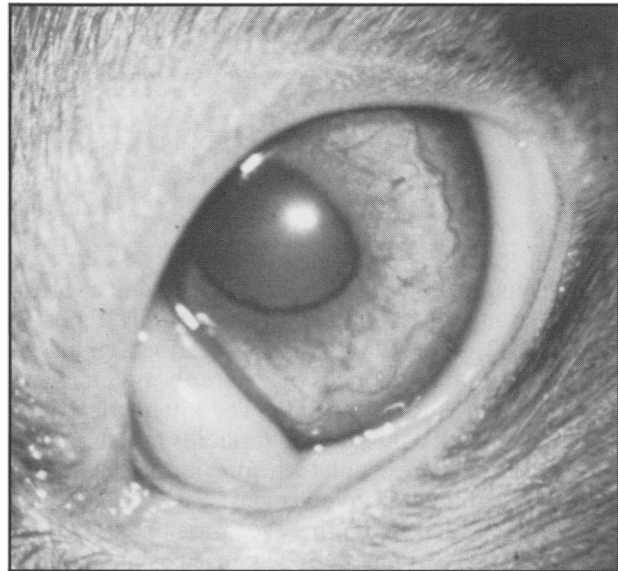


Figure 4. Burmese kitten with a prolapse of the gland of the third eyelid of the left eye.

Excision of dermoids of the external nares was done using a #15 scalpel blade and tenotomy scissors with the assistance of an operating microscope. Closure was with simple interrupted sutures of 5/0 polyglactin. In all cases, sutures were left to dissolve.

The prolapsed gland of the third eyelid was replaced using a modification of Blogg's original technique (3). A suture of 5/0 polyglactin was used to anchor the gland to the most ventral and posterior part of the base of the third eyelid. Albert *et al* (4) described a similar technique for surgical correction of everted third eyelid in two Burmese cats.

All kittens recovered uneventfully and the sutures were resorbed by three weeks postoperatively. Each owner was advised of the likelihood that these anomalies were inherited; neutering was advised. In addition, suggestions were made to the owners that the breeder be contacted and encouraged to investigate the pedigree to better understand the mode of transmission.

Dermoids of the external nares have not been reported previously in Burmese kittens. The fact that these kittens were related suggested a genetic basis but, because the breeder involved was not willing to share details of the pedigree, no conclusions about the mode of inheritance could be made. Dermoids in Hereford cattle have been reported as being inherited (5,6). In a report by Henty-Ibbs on familial epibulbar dermoids in the Birman cat, a multifactorial mode of inheritance with a threshold phenomenon was hypothesized (1). Although the Burmese and Birman breeds both originate from southeast Asia, they are dissimilar in

appearance and have no common ancestry since being introduced into North America. The history of the Burmese breed on this continent begins with one female imported in 1930 followed by a few more imports a few years later (7). Because of the initial small gene pool and the practice of inbreeding, there is a danger of allowing genetic defects to increase unless these anomalies are reported and recognized.

Acknowledgments

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