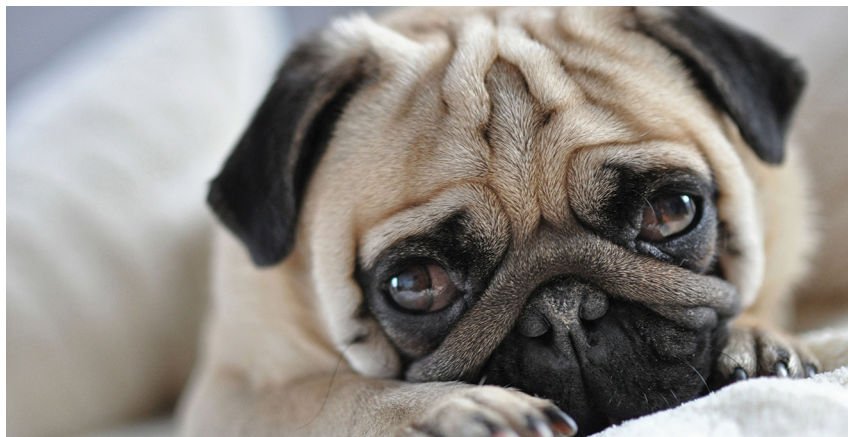


## Pug with Squamous Cell Carcinoma

Primary ocular surface squamous cell carcinoma (SCC) is common in horses and cattle but rarely described in dogs. Chronic keratitis, as seen in brachycephalic breeds, and use of topical cyclosporine have been hypothesized as possible triggers in corneal SCC pathogenesis in dogs. In this case, a 12-year-old male pug had a well-demarcated, central, 3-mm diameter, pale pink raised mass on the right cornea. Temporal to this lesion was a poorly demarcated 5 mm-diameter, rough, slightly raised white lesion. Severe, dense corneal pigmentation was also present diffusely on the right eye, as was moderate superficial corneal vascularization. An incisional biopsy of the central mass revealed findings consistent with corneal SCC.

The owner declined surgical excision, and the lesions were treated with 1% 5-fluorouracil ointment 4 times a day for 2 weeks. This was followed by 2 weeks with no treatment, then by another 2 weeks with treatment 2 times a day. To reduce corneal pigmentation,



ongoing therapy with 2% cyclosporine was prescribed. There was no evidence of SCC regrowth on the cornea 10 months after stopping 5-fluorouracil therapy. The only complication was progression of the dense corneal pigmentation, likely secondary to the client discontinuing cyclosporine therapy. The authors concluded that 1% 5-fluorouracil potentially could be used as sole therapy for corneal SCC, although more studies are warranted.

### Commentary

This study presented a possible viable, safe option for dogs affected by ocular SCC. Unfortunately, because this case involved only 1 dog, assumptions about the efficacy and use of this drug as sole therapy for ocular SCC cannot be made.

Further investigations may help prove this as a valid treatment option. Additionally, use of this drug without surgical excision may decrease postsurgical corneal scarring and potentially could improve vision in these patients. Surgical excision should still be considered the gold standard for removal of the lesions, but use of 5-fluorouracil ointment in conjunction with surgical excision or as monotherapy may be considered when surgery is not an option.—*Rebecca Telle, DVM*

### Source

Dorbandt DM, Driskell EA, Hamor RE. Treatment of corneal squamous cell carcinoma using topical 1% 5-fluorouracil as monotherapy. *Vet Ophthalmol.* 2016;19(3):256-261.

## Therapeutics Research Note: Pimobendan

Pimobendan, a phosphodiesterase-III inhibitor and calcium sensitizer, has

positive survival benefits in dogs with congestive heart failure from mitral valve degeneration. Initial clinical trials in humans showed a trend toward increased arrhythmias and sudden death but no significant difference in type or incidence of supraventricular or ventricular arrhythmias were seen in this double-blind, randomized, placebo-controlled crossover study of 8 dogs.

With 2 weeks of pimobendan treatment, average heart rate and sleeping respiratory rate were lower than baseline values.

### Source

Lake-Bakaar GA, Singh MK, Kass PH, Griffiths LG. Effect of pimobendan on the incidence of arrhythmias in small breed dogs with myxomatous mitral valve degeneration. *J Vet Cardiol.* 2015;17(2):120-128.