

Thomas M. Donnelly, DVM, Column Editor

What's your diagnosis?

Nodular Lesion on the Eyelid of a Dwarf Rabbit

Submitted by Robin G. Stanley, BVSc, Narelle Brown, BVSc, and Chloe Hardman, BVSc

A local veterinarian referred an eight-year-old castrated male Himalayan dwarf rabbit to a veterinary ophthalmologist for treatment of a tumor on the left upper eyelid, which the rabbit's owner had first noticed one month previously.

The tumor had grown rapidly, especially in the previous two weeks. The rabbit did not appear distressed by the lesion, as it was eating normally and not rubbing the left eye. On examination, we noticed a watery discharge from the left eye and a white-to-tan nodular lesion 12 mm long, 4–5 mm wide and raised 6–7 mm, extending to the medial canthus on the left upper eyelid. The tumor involved the palpebral skin of the left upper eyelid and infiltrated to the subconjunctival dermal layer, but did not reach the conjunctiva.

The cornea and conjunctiva of both eyes were unremarkable. We performed a Schirmer tear test and measured intraocular pressure of both eyes using applanation tonometry, and found the values within the normal ranges. Fluorescein staining of both corneas revealed no lesions. Slit lamp examination of the left and right irises and

lenses were unremarkable; we noticed some variability in the color of both irises, but did not observe any lesions. The lenses were clear and transparent. Examination of the fundus of both eyes with a binocular indirect ophthalmoscope and 20-diopter lens was unremarkable, and we observed no abnormalities. General examination of the rabbit was unremarkable and the mandibular lymph nodes were not palpably enlarged. We took a punch biopsy for histologic examination.

Microscopically, the tumor was pleomorphic. In the basal epidermis and superficial dermis, aggregates of swollen, pleomorphic tumor cells with flattened nuclei were arranged around acinar-like structures. Many cells were swollen and disorganized. In the dermis, epithelioid and spindle-shaped tumor cells, demarcated by thin fibrous trabeculae, were arranged in interweaving bundles.

Due to the involvement of more than half the upper eyelid, we decided that treatment with radioactive gold-198 seeds was appropriate. We placed five radioactive gold-198 seeds in a grid pattern, with each seed 1 cm apart, in two rows: three in the row adjacent to the palpebral conjunctiva and two in the next row. The seeds deliv-



FIGURE 1. The left eye of an eight-year-old castrated male Himalayan dwarf rabbit, four weeks after brachytherapy with radioactive gold-198 seeds. The nodular lesion has shrunk, and there is a hard black lump that is necrotic tumor tissue.

ered a minimum tumor dose of 65 Gy. Four weeks postoperatively the mass had shrunk, with only a small dry scab remaining (Fig. 1). After another four weeks, there was almost no evidence of the tumor; however, about 5 mm of eyelid margin was absent. This did not cause any clinical signs other than mild conjunctivitis.

What type of tumor do you think was present? How could it have arisen? Is it likely to recur? What is the prognosis for this rabbit?

What's your diagnosis?

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LAB ANIMAL welcomes reader contributions to "What's Your Diagnosis?" in the case history/diagnosis format presented here; submissions should include two to five illustrations or photos. Please email your manuscript to labanimal@natureny.com or send a hard copy and an electronic copy on disk to Thomas M. Donnelly c/o Editorial Dept., LAB ANIMAL, 345 Park Avenue South, 10th Floor, New York, NY 10010. Selections are made on the basis of relevance and interest to readers.