
CONJUNCTIVAL SQUAMOUS CELL CARCINOMA ASSOCIATED WITH SOLAR ELASTOSIS IN A WHITE RHINOCEROS (*Ceratotherium simum*)

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Abstract

Squamous cell carcinoma has been previously reported in the white rhinoceros (*Ceratotherium simum*). However in those cases, lesions have been limited to the skin and oral cavity.^{1,2,5} A 36 year old male white rhinoceros was presented with a mass on the left eye. Ophthalmic exam revealed a partially pigmented, focal, exophytic, papillary conjunctival mass at the temporal limbus. Differentials included a papilloma or early squamous cell carcinoma. Standing sedation was performed with butorphanol (70 mg), azaperone (100 mg), and detomidine (15 mg) i.m. Proparacaine (0.5% solution) was applied topically for local anesthesia. The mass was excised with sharp dissection using aseptic technique, and adjunctive cryotherapy was administered at the surgical site in a double freeze-thaw cycle. Post-operatively the rhinoceros was treated with neomycin-polymyxin-bacitracin ophthalmic ointment (o.s. topical b.i.d) and oral firocoxib (228 mg p.o. s.i.d.). Histologic diagnoses of the mass included squamous cell carcinoma, solar elastosis, and mild lymphoplasmacytic conjunctivitis with neoplastic cells extending to the margins. Topical treatment with strontium 90 plesiotherapy was considered if adjunctive cryotherapy was inadequate and recurrence was observed. At 5 months post-operatively there has been no recurrence at the surgical site. Solar elastosis results from chronic exposure to the ultraviolet spectrum of sunlight.³ In horses it is not uncommon to find ocular squamous cell carcinoma in association with solar elastosis.⁴ However to the authors' knowledge, this represents the first case of conjunctival squamous cell carcinoma in a rhinoceros associated with solar elastosis.

Key words: *Ceratotherium simum*, conjunctiva, cryotherapy, squamous cell carcinoma, solar elastosis, white rhinoceros

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