

Exenteration in a Stallion as a Treatment of Ocular Squamous Cell Carcinoma under General Anesthesia- A Case Report

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Ocular squamous cell carcinoma (SCC) is the most prevalent ocular cancer in horses, causing rapid vision loss. Horses with unpigmented skin around their eyes are more prone to developing SCC, with ultraviolet light exposure being a significant risk factor. This case study involves a 5-year-old stallion with a 7.5 cm mass on its right eye, present for five months. The stallion exhibited blindness and infected conjunctiva and the preoperative blood tests were unremarkable. Fine needle aspiration cytology showed atypical epithelial cells arranged in clusters, indicative of SCC prompting a clinical recommendation for enucleation. Procaine benzyl penicillin (22 mg/kg) intra-muscularly and flunixin (1.1mg/kg) intravenously (IV) were administered as an antibiotic and analgesic respectively, and detomidine (0.01 mg/kg) and butorphanol (0.01mg/kg) IV were used as pre-anesthetic agents. Anesthesia was induced with ketamine (2.2mg/kg) IV and midazolam (0.05mg/kg) IV and the horse was intubated with 18 mm size tube and positioned in left lateral recumbency. Anaesthesia was maintained with 100%(v/v%) isoflurane and oxygen, with continuous infusion 1.2mg/kg/hr of ketamine (1000mg) and detomidine (10mg), and dobutamine (125mg) administered via a syringe pump. The surgical site was prepared with chlorhexidine, and lidocaine was infiltrated locally. Exenteration, by suturing the eyelids followed by transecting the canthal ligaments, dissecting around the conjunctival sac to detach the extraocular muscles and transecting the optic nerve was performed. The orbital cavity was thoroughly debrided and was covered with a bandage. Post-surgical wound care was instituted every other day for two weeks, and the frequency was reduced. The wound healed completely without complications. Histopathology revealed highly atypical squamous epithelial cells and frequent central keratin pearls along with predominantly composed of neutrophils with intracellular bacteria. This report is notable as the first documented successful exenteration of a horse using a gaseous agent to maintain general anesthesia in Sri Lanka.

Keywords: Horse, SCC, Exenteration, Isoflurane