



SESSION 3

Clinical-pathological correlation of mucogenic glaucoma

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Overview: Mucogenic glaucoma is rare, with only five reported cases. A teenage girl was evaluated at the Duke University Eye Center because of a black veil sensation in her right eye, which her friends recently noted appeared cloudy. Clinical examination revealed decreased visual acuity, increased intraocular pressure, and hazy material extending through the pupil into the temporal side of the anterior chamber. Ultrasound biomicroscopy showed hyperechoic fluffy material in the anterior chamber with mild posterior bowing of the iris plane but no iris cyst. During pars plana and anterior vitrectomy, a flat whitish-gray membrane across the superior iris was biopsied, revealing pseudostratified columnar epithelium with a preponderance of goblet cells resembling that in three prior reports of mucogenic glaucoma associated with iris cysts. K  hle and Naumann reported a post-traumatic case of mucogenic glaucoma that was deemed secondary to epithelial ingrowth of goblet cell-containing epithelium. Wakae and coworkers reported a “post-traumatic iris cyst” with mucogenic glaucoma, but the cyst wall was non-keratinizing stratified squamous epithelium lacking goblet cells. In this case, there was no history of ocular trauma, the epithelium did not resemble that of epithelial ingrowth, and the lack of expression of CK7, CK 14, and PAX8 by the pseudostratified columnar epithelium did not support a conjunctival origin. The histological appearance and immunoprofile of the epithelium removed from the iris surface did not resemble that of an ectopic respiratory-type cyst. I conclude that the epithelium removed from the patient’s iris arose from a ruptured iris cyst having a novel histological appearance and immunoprofile.

Key Words: Mucogenic glaucoma; glaucoma; iris cysts

Abstract Category: Clinical case report with an ocular pathology theme.

SESSION 3

A conjunctival mystery

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Case: A 31-year-old lady presented with progressive blurry vision on her right eye along with pain on eye movements and retrobulbar pain. She was treated for optic neuritis with, however, no significant improvement. On follow up, she had persistent pain and a new lesion on superior bulbar conjunctiva which was treated as necrotic scleritis. The right eye was injected superiorly, did not blanch with phenylephrine and had a central white/yellow area of thickened sclera. Swabs and serological screening did not reveal any infectious agent. On admission, there has been no improvement despite intravenous methylprednisolone followed by oral steroids. In addition to steroids, she received doxycycline, amoxicillin and levofloxacin. UBM did not reveal any foreign body, and MRI & CT scans were essentially normal. In view of the poor response to treatment, a conjunctival biopsy was performed which, on histology, demonstrated an abrupt ulcerated area associated with extensive necrosis and a rim of histiocytes and neutrophils. However there was no evidence of granulomas, multinucleate giant cells, vasculitis or malignancy. Specials stains for microorganisms were all negative. She continued with severe pain and presumed necrotising scleritis of uncertain origin for several weeks, however serum inflammatory markers were consistently within normal limits. Subsequent biopsies confirmed discrete coagulative necrosis but failed to identify any causative agent. Taken together the peculiar presentation and morphological findings, conjunctivitis artefacta was considered. Following a multidisciplinary discussion and comprehensive review of medical history, both systemic and topical treatments were stopped. The lesion finally resolved after temporary tarsorrhaphy. A short review on conjunctivitis artefacta and its diagnostic challenges is presented.

Abstract Category: Clinical case report with an ocular pathology theme.



SESSION 3

Equine squamous cell carcinomas: Morphological, immunohistochemical and viral characterisation with proposed histopathological classification system

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Background: Equine genital and ocular squamous cell carcinomas (eSCCs) have a guarded to poor prognosis, and a substantial proportion are likely induced by equine papillomavirus. Accurate prediction of clinical outcomes is challenging with no recognised prognostic criteria or consistent histopathological classification scheme for eSCC. Objectives The aims of this study were to histopathologically subtype a large case series of eSCCs and correlate with p16 and HER-2 expression, equine papillomavirus infection, and various clinical and histopathological parameters to predict tumour behaviour and prognosis.

Methods: One hundred twenty-three tumours (62 periocular and 61 genital) from 122 horses were examined and subtyped histologically. HER-2 and p16 immunohistochemistry (IHC) and in-situ hybridisation (ISH) for the E6/E7 oncogenes of Equus caballus papillomavirus 2 (EcPV-2) were performed on a subset of cases and follow up survival data analysed. Results were compared and correlated with published guidelines on the categorisation of human SCC.

Results: Six WHO histopathological subtypes of SCC were identified for the first time in horses: usual/invasive (most common), verrucous, pseudoglandular, papillary, warty, and basaloid. HER-2 and EcPV-2 statuses were not associated with prognosis in horses with SCC. Intratumoural necrosis, vascular invasion, and tumour recurrence were all associated with shorter survival times in equine genital and periocular SCC cases. p16-negative status is suggested as a negative prognostic indicator. ISH demonstrated EcPV-2 genetic material in the majority of eSCCs except for the papillary subtype.

Conclusion: eSCC can be classified within different histological subtypes which demonstrate prognostic significance. p16 appears to have a role in equine SCC tumourigenesis, however it requires further investigation. ISH reveals the presence of EcPV-2 within mature, and not just pre-cancerous, eSCCs. Widespread HER-2 expression in eSCCs may represent a potential therapeutic target.

Key Words: ocular, equine, squamous cell carcinoma

Category: Brief research paper report relevant to disease of the eyes.

SESSION 3

Corneal biopsies in Sheffield 2013-2025 - Who, why, where and what

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No abstract.

SESSION 3

Cue Orbit

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No abstract

Category: Clinical case report with an ocular pathology theme.

SESSION 3

Paraps you didn't see me the first time

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No abstract.