



The Royal Australian and New Zealand College of Ophthalmologists

A.C.N. 000 644 404
94 – 98 Chalmers Street,
SURRY HILLS NSW 2010 AUSTRALIA
Telephone 61 2 9690 1001 Facsimile 61 2 9690 1321
E-mail: ranzco@ranzco.edu
<http://www.ranzco.edu>

ADVANCED PATHOLOGY EXAMINATION

WINTER 2007

Wednesday, 27 June 2007

- **Candidates must attempt EVERY question.**
- **All Questions carry equal marks.**
- **DURATION OF PAPER: 2.5 HOURS**

Question 1

- (a) Compare and contrast the pathological features of exudative age related macular degeneration (ARMD) precursors and exudative ARMD.
- (b) Discuss the pathological natural history of exudative ARMD
- (c) How does anti VEGF (vascular endothelial growth factor) treatment alter this natural history?

Question 2

- (a) Discuss how a pathologist can differentiate between an artefactual retinal detachment and a pathological retinal detachment when examining a globe?
- (b) Outline the pathophysiology of pathological retinal detachments.

Question 3

- (a) A globe with ocular melanocytosis has been removed due to the presence of a choroidal melanoma. Discuss the likely pathological features of ocular melanocytosis.
- (b) Circumferential or ring (iris) melanomas with documented clinical growth are difficult management problems. Why is this the case?

Question 4

- (a) Discuss the pathological features of the uveal effusion syndrome.
- (b) What are 2 possible differential diagnoses?
- (c) What clinical investigation is useful (where available) to make this diagnosis?

Question 5

Discuss the pathology of causes of reduced visual acuity following phacoemulsification complicated by posterior capsule rupture.

Question 6

Discuss the pathogenesis of ocular complications that lead to permanent vision loss following endogenous (blood borne) fungal infections of the eye.

Winter 07 Advanced Pathology Exam Paper Page 2

Question 7

Why does anterior segment neovascularisation cause glaucoma (as an early complication) and phthisis (as a late complication)?

Question 8

- (a) Discuss the pathological features of aniridia, and commonly encountered associated pathological findings.
- (b) What is the pathogenesis of aniridia?

Question 9

- (a) Discuss Ocular Surface Squamous Neoplasia (OSSN), from a pathological point of view.
- (b) What pathological features of OSSN may be associated with a worse prognosis?
- (c) Indicate your follow up of a patient with a completely excised OSSN lesion involving the limbus (2 clock hours) with good clearance on pathology.

Question 10

A 56 year old male patient had a wedge resection of his left lower lid for a clinical basal cell carcinoma. The pathology report stated “that the tumour was a poorly differentiated squamous cell carcinoma and there was evidence of perineural invasion within the confines of the tumour. All margins were well clear with the exception of the deep margin which was possibly clear by a 0.2mm margin.”

Discuss the findings of this pathology report with reference to specific detail that may influence care and follow up.

Question 11

- (a) Discuss the pathological changes in the retina of cytomegalovirus (CMV) retinitis?
- (b) What are the complications that may follow as a result of this condition?
- (c) Discuss the overall visual prognosis in such patients with optimal treatment.

Question 12

A four year old (Afghani) child presented with a leucocoria and a blind painful eye. Enucleation was performed and on macroscopic examination the retina was detached by exudates. The angles were closed and the cornea was opaque. Histological examination revealed the pathology of secondary neovascular glaucoma. In serial sections an area of fibrinoid necrosis was surrounded by inflammatory cells, including numerous eosinophils, within the detached retina.

- (a) What is the differential diagnosis?
- (b) What is the likely diagnosis? Describe the likely aetiology of this condition.

END OF PAPER