

Paper 2 – Questions 1-5

QUESTION 1

A child presents to you for a second opinion. He is 4 years old and was picked up at a vision test as having a problem with the left eye. He has had no previous treatment. A month ago an optometrist put him into spectacles of the following strength:

R = +1.00, L = +5.00.

Your orthoptist's report is as follows:

- (i) RVA 6/6 LVA 6/12 Sheridan-Gardiner = \hat{c} gls
- (ii) CT \hat{c} gls 1/3m + 6 m sl esophoria \hat{c} rapid recovery
 \hat{s} gls 1/3m + 6 m -sl esophoria \hat{c} rapid recovery
- (iii) OMM full
- (iv) Conv. Binoc. to 6 cms
- (v) TNO \hat{c} gls 120"
- (vi) 4 dioptr \hat{c} gls LE -ve
- (vii) PCT \hat{c} gls 1/3m + 6 m 8 Δ
 \hat{s} gls 1/3m + 6 m 12 Δ

- (a) What does the finding (vi) signify?
- (b) What is the diagnosis?
- (c) Is the stated level of stereoacuity likely to be correct? Please justify your answer.
- (d) What is the best level of acuity that should be achieved in the left eye with patching and why?
- (e) What is the next step in management?
- (f) Is it appropriate to prescribe the given (above) level of anisometric correction in one eye or should the strength for the left eye be increased slowly? Explain your answer.
- (g) Assuming refractive surgery for this level of hyperopia becomes an option for this person later in life would you have any concerns about offering it? If so why and if not why not?
- (h) If in a similar case of a 4 year old child presenting to you for the first time your cycloplegic refraction (with the adjustment for your working distance already made) was:
+ 2.50 RE , +5.00 LE,
what would you prescribe ?

QUESTION 2

A 4 month old baby boy presents with a 40 dioptr esotropia. There is a family history of strabismus.

- (a) What is your differential diagnosis for an esotropia in this age group?
- (b) What is the most likely diagnosis?
- (c) List features which would support this diagnosis in (b).
- (d) What ways are there for you to assess the vision in this child?
- (e) List your management issues in this patient.

QUESTION 3

A 45 year old male is referred to you by an optometrist who is concerned the optic discs show glaucomatous damage. Standard Humphrey field analysis (24-2 SITA Standard) is normal. Intraocular pressure is 20 mmHg in each eye. Best corrected visual acuity is 6/6 in each eye. Describe in detail the features you would look for in the history and examination which would help you establish whether this patient has glaucoma. Do not discuss investigations or perimetry.

QUESTION 4

The following terms appear on the printout of the Humphrey visual field analyzer. Explain briefly their meaning and clinical relevance.

1. Pattern Deviation Probability Plot
2. Glaucoma Hemifield Test
3. SITA
4. a) Mean Deviation (MD)
b) False Positive Errors

QUESTION 5

A 30 year old lady is referred to you for an opinion whether both optic discs are swollen.

- (a) List the causes of pseudopapilloedema which you must exclude in this patient
- (b) List the symptoms that would help you differentiate true disc swelling from these causes of pseudopapilloedema in (a).
- (c) List the fundus signs that would help you differentiate true disc swelling from these causes of pseudopapilloedema in (a).

PATHOLOGY – AUGUST 2003

QUESTION 1

- a. What factors predispose contact-lens wearers to microbial keratitis?
- b. What changes are seen in corneal epithelium in Contact lens wearers and how is this thought to relate to the pathogenesis of microbial keratitis in such patients?

QUESTION 2

A series of patients in one hospital develop acute corneal decompensation within 24 hours of undergoing intra-ocular surgery. What are possible causes, and how would you investigate the most likely aetiology of this outbreak?

QUESTION 3

Write short notes on the histology of

- a) cholesterol granuloma of orbit
- b) eosinophilic granuloma of orbit.

QUESTION 4

- a. Give a brief outline of the evidence for iatrogenic transmission of Creutzfeldt-Jakob disease including particular reference to ophthalmology.
- b. What measures are taken to reduce this risk?

QUESTION 5

- a. Discuss the pathology of the iridocorneal endothelial syndromes.
- b. How would a pathologist make a diagnosis of ICE syndrome on a penetrating keratoplasty specimen?

QUESTION 6

- a. What are the histological features of radiation retinopathy and radiation optic neuropathy?
- b. Outline the pathological features of radiation injury to the lens and briefly discuss the pathogenesis.

Part II Exam Papers Winter 2003

QUESTION 7

Outline the histology and ultrastructural features of diabetic maculopathy.

QUESTION 8

- a. A penetrating keratoplasty has failed due to graft rejection, and is removed at a subsequent keratoplasty. Describe the histological features of the failed graft.
- b. Discuss direct and indirect antigen presentation in the pathophysiology of corneal graft rejection.

QUESTION 9

Describe the pathology, investigation and prognosis of

- a. juvenile xanthogranuloma
- b. atypical fibroxanthoma

QUESTION 10

Compare and contrast apoptosis and necrosis. Give 2 examples of each in Ophthalmology.

QUESTION 11

For subepithelial corneal pannus

- a. describe its pathogenesis
- b. describe the histology

QUESTION 12

For Bechets disease

- a. discuss its pathophysiology
- b. discuss the histology of the uveal tract involvement