

Case XGVfAnFZtYUfupBVAh84 — Questions

Case Details

Demographics 7-year-old Asian female; student

Chief complaint blurred vision

History of present illness

Secondary complaints/symptoms none

Patient ocular history 1st eye exam

Family ocular history mother: strabismus

Patient medical history unremarkable

Medications taken by patient multivitamins

Patient allergy history NKDA

Family medical history unremarkable

Review of systems

Mental status

Clinical findings

Uncorrected visual acuity

Pupils: PERRL, negative APD

EOMs: full, no restrictions OU

Cover test: distance: 2 exophoria, near: 2 exophoria

Confrontation fields: full to finger counting OD, OS

Oculomotor system

Subjective refraction

Accommodative system

Vergence system

Sensory system

DEM test (percentile rank): 50% horizontal, 60% vertical, 55% ratio, 99% errors

Slit lamp

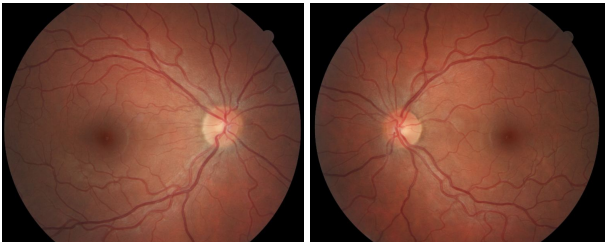
IOPs: OD: 15 mmHg, OS: 15 mmHg @ 1:15 pm by iCare tonometer

Fundus OD

Fundus OS

- Character/signs/symptoms: vision becomes blurry during periods of prolonged near work
- Location: OD, OS
- Severity: moderate
- Nature of onset: gradual
- Duration: 1 year
- Frequency: daily
- Exacerbations/remissions: worse at the end of the day; improves with rest
- Relationship to activity or function: occurs after 20 minutes of reading (or other near work)
- Accompanying signs/symptoms: fatigue, eyestrain
- Constitutional/general health: denies
- Ear/nose/throat: denies
- Cardiovascular: denies
- Pulmonary: denies
- Dermatological: denies
- Gastrointestinal: denies
- Genitourinary: denies
- Musculoskeletal: denies
- Neuropsychiatric: denies
- Endocrine: denies
- Hematologic: denies
- Immunologic: denies
- Orientation: oriented to time, place, and person
- Mood: appropriate
- Affect: appropriate
- OD: distance: 20/20, near: 20/20 @ 40 cm
- OS: distance: 20/20, near: 20/20 @ 40 cm
- Pursuits: normal
- Saccades: normal
- Fixations: normal
- OD: +0.25 -0.25 x 005; VA distance: 20/20, VA near: 20/20 @ 40 cm
- OS: plano -0.25 x 180; VA distance: 20/20, VA near: 20/20 @ 40 cm

- Amplitudes: OD: 5 D, OS: 5 D, OU: 6 D
- Facility (+/- 2.00): OD: 5 cycles/minute, OS: 5 cycles/minute, OU: 4 cycles/minute
- NRA/PRA: +1.50 / -0.50
- Monocular estimation method (MEM): OD: +1.00, OS: +1.00
- NPC: 3 cm
- Vergences: NFV @ far: x/6/3, NFV @ near: 11/22/14; PFV @ far: 11/19/11, PFV @ near: 18/22/19
- Facility: 8 base-out/8 base-in: 9 cycles/minute @ 40 cm
- Worth 4 dot: far: no suppression, near: no suppression
- Stereopsis: 25"
- lids/lashes/adnexa: unremarkable OD, OS
- conjunctiva: normal OD, OS
- cornea: clear OD, OS
- anterior chamber: deep and quiet OD, OS
- iris: normal OD, OS
- lens: epicapsular stars OD, OS
- vitreous: clear OD, OS
- C/D: see image 1
- macula: see image 1
- posterior pole: see image 1
- periphery: unremarkable
- C/D: see image 2
- macula: see image 2
- posterior pole: see image 2
- periphery: unremarkable



Question 1 / 5

Based on the examination findings, what is the MOST likely cause of the patient's symptoms associated with prolonged near work?

- A) Convergence excess
- B) Accommodative insufficiency
- C) Convergence insufficiency
- D) Accommodative excess
- E) Divergence excess

Question 2 / 5

According to Hofstetter's formula, given this patient's age, what would her expected minimum monocular amplitude of accommodation be via the push-up method (rounded to the nearest whole dioptric value)?

- A) 8 D
- B) 15 D
- C) 11 D
- D) 10 D
- E) 13 D

Question 3 / 5

Which 2 of the following vision therapy techniques should be prescribed in order to help relieve this patient's symptoms? (Select 2)

- A) Monocular push-ups
- B) Binocular pencil push-ups
- C) Monocular lens clearing and sorting
- D) Brock string
- E) Percon saccades
- F) Vectograms
- G) Pencil saccades

Question 4 / 5

Which of the following monocular estimation method (MEM) findings is ALWAYS considered abnormal?

- A) Any lag
- B) Any lead
- C) +0.25
- D) +0.50
- E) Plano

Question 5 / 5

If the patient's parents decided not to have the patient undergo vision therapy, which of the following alternative options would BEST help relieve her symptoms?

- A) There are no other options available to this patient
- B) Prescribe glasses with base-in prism for use with prolonged near work
- C) Prescribe +1.00 DS OU glasses for use with prolonged near work
- D) Prescribe -1.00 DS OU glasses for distance use
- E) Prescribe glasses with base-out prism for use with prolonged near work
- F) Prescribe patching of each eye for 2 hours a day with 30 minutes of near activities