

IS IT REAL, OR NO BIG DEAL?

2 hours

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Description:

When working in a primary eye care setting, a great variety of conditions can present on a daily basis. It can sometimes be difficult to know when the patient's signs or symptoms suggest a serious, urgent or emergent issue vs an insignificant finding. This case-based course demonstrates several patient scenarios and lets the participants determine how they would handle each situation. Participants are reminded that they have many tools at their disposal, which when used appropriately, can help them to differentiate if the patient's signs and symptoms are real, or no big deal.

Learning Objectives:

1. Discuss various clinical ocular presentations that need urgent work-up and referral.
2. Explain how many in-office tests can be used to their fullest potential to better determine the etiology of a sign or symptom.
3. Differentiate optic disc and retinal findings that are concerning, require additional work-up and referral, versus those that can be monitored.
4. Differentiate visual field findings that are concerning, require additional work-up and referral, versus those that can be monitored.
5. Differentiate ocular motility presentations that are concerning, require additional work-up and referral, versus those that can be monitored.

Course Outline: CASE-BASED PRESENTATION

CASE 1

- A. Causes of indistinct optic disc margins
 - a. Papilledema
 - b. AAION
 - c. NAION
 - d. Optic neuritis
 - e. Perioptic neuritis
 - f. Neuroretinitis
 - g. Emboli / ischemia
 - h. Leber's hereditary optic neuropathy

- i. Diabetic papillopathy
 - j. Disc drusen
 - k. Vitreopapillary traction
 - l. Hypoplastic disc
 - m. Other anomalous disc
- B. Peri optic neuritis
- a. Swollen optic disc
 - b. Visual function varies
 - c. Can be painful
 - d. Causes
 - i. Idiopathic
 - ii. Sarcoid
 - 1. ACE
 - 2. Lysozyme
 - iii. Syphilis
 - 1. RPR
 - 2. FTA-ABS
 - iv. IgG4ROD
 - v. GPA
 - vi. GCA
 - vii. Behcet's
 - viii. Lupus
 - ix. TB
 - 1. Quantiferon gold
 - x. Leukemia
 - xi. Herpes
 - xii. Viral encephalitis
 - xiii. Metastatic malignancy
 - xiv. NOT MS!
- C. Neuroretinitis
- a. Swollen optic disc
 - b. Acute changes in vision
 - c. Painless
 - d. Many have upper respiratory infection
 - e. Peripapillary exudative RD
 - f. Macular star not present until 2 weeks later
 - g. Causes:
 - i. Cat scratch
 - 1. Bartonella
 - a. Quintana
 - b. Hensalae
 - ii. Sarcoid
 - iii. Syphilis
 - iv. Lyme

- v. Toxoplasmosis
- vi. TB
- vii. NOT MS!

D. Neurosyphilis

- a. Involvement of the CNS
 - i. Brain
 - ii. Spinal cord
 - iii. Optic nerve
 - iv. Retina
- b. Diagnosed with lumbar puncture / CSF analysis
 - i. VDRL
 - ii. FTA-ABS
- c. Treatment IV penicillin G
 - i. 10-14 days
- d. Syphilis rates are on the rise

CASE 2

- A. GLP-1 Agonists
 - a. Treat T2DM and obesity
 - b. Potential risk of NAION
 - i. More studies needed
- B. Normal RNFL thickness
 - a. Normative database based on age
 - b. No age matched norms for children
 - i. Studies show mean avg RNFL in kids = 107.6 um
- C. Features of papilledema
 - a. OCT
 - i. RNFL thickening
 - ii. Paton's lines on en face views of vitreoretinal interface
 - iii. Bruch's membrane sloping upward
- D. Features against papilledema
 - a. Normal RNFL thickness
 - b. Bruch's membrane sloping downward
 - c. Spontaneous venous pulsation

CASE 3

- A. Modified Frisen papilledema scale
 - a. Grade 0-5
- B. The presence of vitreopapillary traction does not rule out papilledema!
- C. Superior and inferior fibers swell first in papilledema

CASE 4

- A. Mild TBI
 - a. Acute brain injury resulting from mechanical energy to head from external forces

- b. Same as concussion
 - c. Does not have to be associated with loss of consciousness
- B. Second impact syndrome
- a. Suffering a second traumatic brain injury in close time proximity to a primary brain injury
 - b. Exacerbates neuronal injury in cells made vulnerable by the initial TBI
 - c. Diffuse cerebral swelling develops in the setting of a second concussion, which has occurred when a patient is still symptomatic from an earlier concussion.
 - d. Disordered cerebral autoregulation causing cerebrovascular congestion and malignant cerebral edema with increased intracranial pressure
 - e. Rare, but potentially FATAL
 - f. Why is it important for athletes to be removed from play after head trauma
- C. TBI and visual symptoms
- a. visual symptoms occur in MOST (75%) individuals with concussion
 - b. blurred vision, poor visual focus, difficult reading, diplopia, rarely shaking vision (i.e., oscillopsia), photophobia, intolerance of visual activities, headaches, and dizziness.
 - c. Poor tolerance of visual activities such as screen use and scrolling on smart phones is common
 - d. Although most symptoms will resolve with time, 15% of mTBI patients have disabling symptoms after 1 year!
- D. Findings not typically associated with nystagmus
- a. Excessive blinking
 - b. Mouth movements
 - c. Audible sounds
 - d. Fatiguability (not sustained)
- E. Conversion Disorder
- a. A condition in which a patient shows psychological stress in physical ways.
 - b. A health problem that starts as a mental or emotional crisis — a scary or stressful incident of some kind — and converts to a physical problem.
 - c. Risk Factors
 - i. Stress or emotional trauma
 - ii. Female
 - iii. Adolescent or young adult
 - iv. Mental health conditions
 - v. mood /anxiety disorders, dissociative or personality disorders
 - vi. Family member with conversion disorder
 - vii. History of physical or sexual abuse
 - viii. Financial problems

F. Functional Vision Disorder

a. Manifestations (**USUALLY AFFERENT**)

- i. **Visual field loss**
- ii. Generalized constriction
- iii. Homonymous hemianopia
- iv. **Reduced visual acuity** (wide variability)
- v. **Abnormal eye movements (EFFERENT - less common)**

CASE 5

A. **Chiari I Malformation**

a. Herniation of cerebellar tonsils through foramen magnum

i. Symptoms

1. Headache (suboccipital)
2. Neck pain
3. **Pain behind eyes**
4. **Visual disturbances**
5. **Diplopia**
6. **Photophobia**
7. **Nystagmus**
 - a. **Downbeat**
 - b. **Periodic alternating**
8. Dizziness
9. Hearing disturbances
10. Weakness
11. Paresthesias
12. Ataxia
13. Dysphagia
14. **CN Palsies**
15. Syncope

B. Types of Functional Vision Disorder

a. Suggestible Innocent

- i. Convinced self of vision problem
- ii. Complacent / not worried

b. Impressionable Exaggerator

- i. Thinks something is wrong with eyes
- ii. Wants to help the doctor make symptoms easy to recognize

c. Worrying Imposter

- i. Knowingly exaggerating visual symptoms
- ii. Worried has a serious problem
- iii. Doesn't want problem to be overlooked / miss out on future benefits

d. Deliberate Malingerer

- i. Faking of visual problem

1. For monetary gain
2. For attention

CASE 6

- A. Alzheimer's disease
 - a. Progressive neurodegenerative disease
 - b. **Predominantly a disorder affecting memory**
 - i. **Does not progress suddenly**
 - c. As the disease progresses, can affect
 - i. Orientation
 - ii. Attention
 - iii. Language
 - iv. Executive function
 - v. Visuospatial
 - d. Visual symptoms
 - i. Blur
 - ii. Difficulty seeing in twilight or in rain
 - iii. Colors are washed out
 - iv. Vision just is not right
 - v. Reduced Visual Acuity
 1. Should NOT be a sudden change
 - vi. Reduced Color Discrimination
 - vii. Reduced Contrast Sensitivity
 1. Increased risk of falls and fractures
 - viii. Visual Field Defects
 1. Mainly inferior
 2. Degree of loss correlates with degree of dementia
- B. Posterior cortical atrophy
 - a. Visual complaints may be vague
 - b. Difficult to diagnose
 - c. Associated with dementia
 - i. **Can be associated with Alzheimer's Disease**
 - ii. Can also be caused by other Neurodegenerative Dz
 - d. Progressive dementing syndromes characterized by higher visual disorders
 - e. Progressive decline in visual processing
 - f. Affects parieto-occipital cortex
 - g. **Can cause a homonymous hemianopia**
 - h. MRI can appear NORMAL (no significant atrophy)
 - i. Brain PET(positron emission tomography) or SPECT (single-photon emission computed tomography) scan shows an abnormality
- C. Brain bleeds
 - a. Increased risk in elderly
 - b. Increased risk with head trauma

- c. Can cause mental status change
- D. Medical emergencies causing acute vision loss
 - a. Etiologies
 - i. Hemorrhagic Stroke
 - ii. All Intracranial Bleeding
 - iii. Ischemic Stroke
 - iv. Transient Ischemic Attack
 - v. Acute Symptomatic Hollenhorst Plaque
 - vi. Acute CRAO, ,BRAO
 - vii. Sudden Unexplained Vision Loss (TVL)
 - b. Send to ER immediately
 - c. Emergent work up needed
 - i. CT, then DWI and ADC MRI within 24-48 hours of vision loss
 - ii. Imaging (CTA) of cervical and intracranial vessels.
 - iii. EKG and echocardiogram
 - iv. Laboratory testing
 - 1. CBC with platelets
 - 2. Coagulation studies
 - 3. Fasting lipid profile

Q&A / Discussion