

Know your ABC's:
Amblyopia, Binocular Vision and Clinical Pearls

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1. Case #1

- a. GS – 7 yo Caucasian male
- b. Amblyopia
- c. Esotropia
- d. Sequential approach to treatment and management
 - i. Ensure patient is wearing best SRx
 - ii. Treat amblyopia
 - 1. Patching vs Atropine
 - iii. Treat esotropia
 - 1. Monitor, prism, vision therapy, surgery
- e. Review ATS 22 research study (currently recruiting)
 - i. Purpose: To evaluate sequential vs simultaneous spectacles plus patching
 - ii. Children ages 3-13 yrs old
 - iii. Unilateral amblyopia
 - iv. No prior amblyopia treatment
- f. Review ATS 23 and 24 research studies (currently recruiting)
 - i. To evaluate dichoptic treatment for amblyopia
- g. Review ETS 3 research study (currently recruiting)
 - i. Purpose: Bifocal spectacles vs single vision spectacles for esotropia
 - ii. Children ages 3-9 yrs old
 - iii. ET greater at near
 - iv. No prior bifocal wear
- h. Clinical pearls:
 - i. Which condition(s) to treat first?
 - ii. Which treatment to start with?
 - iii. When to switch treatment?
 - iv. Prognosis for a “successful outcome” (Patient’s goals vs Doctor’s goals)

2. Case #2

- a. JS – 12 yo Caucasian female
- b. Pseudomyopia
- c. Highlight abnormal BV/accommodative findings
 - i. Esophoria
 - ii. Lead on MEM
 - 1. Dynamic retinoscopy review
 - a. Normal illumination
 - b. Habitual Rx
 - c. Pt habitual working distance
 - d. Both eyes open
 - e. Read aloud words on grade appropriate reading card
 - f. Neutralize with lenses held briefly over the eye
- d. Review accommodative excess
- e. Treatment options
 - i. ADD, reading glasses, cyclo therapy
- f. Clinical pearls:
 - i. Appropriate treatment plan depends on patient's symptoms, age, refractive error, and activities of daily living

3. Case #3

- a. RL – 28 month old Hispanic male
- b. Exotropia
- c. Review Hirschberg Kappa testing
- d. Treatment options
 - i. Monitor, over-minus lenses, patching, vision therapy, surgery
- e. Clinical pearls
 - i. Determine likelihood of condition changing or worsening over time
 - ii. Reference recent studies done for IXT treatment to help determine appropriate treatment and management plan
 - 1. A randomized trial comparing part-time patching with observation for intermittent exotropia in children 12-35 months of age
 - 2. Three-year observation of children 12 to 35 months old with untreated intermittent exotropia

3. Overminus lens therapy for children 3 to 10 years of age with intermittent exotropia

- f. Review studies currently recruiting
 - i. IXT 7 research study
 1. Purpose: Observation vs full time patching in children with intermittent exotropia
 2. Children ages 3-9 years
 3. Intermittent exotropia
 4. No previous treatment of IXT
 - ii. Vision Therapy for IXT research study
 1. Purpose: To determine the short-term effectiveness of vision therapy in children with intermittent exotropia
 2. Children ages 8-16 years
 3. Intermittent exotropia
 4. RDS of 200" or better

4. Case #4

- a. WC – 64 year old Asian male
- b. Vertical deviation
- c. Review tests to perform (in a primary care setting vs specialized care)
- d. Necessary to refer out ASAP?
- e. Treatment options
 - i. Monitor, prism, vision therapy, surgery
- f. Clinical pearls
 - i. Must determine if condition is recent onset vs longstanding (request prior records to help confirm)
 - ii. If Rxing prism, must educate patient that amount of prism may change over time

5. Case #5 (time permitting)

- a. AP – 13 year old Asian male
- b. Cyclic esotropia
- c. Describe the nature of the condition (etiology, prognosis)
- d. Treatment options
 - i. Monitor, prism, vision therapy, surgery

- e. Limited information in the literature (primarily case studies, no RCTs)
- f. Clinical pearls
 - i. No harm in trialing vision therapy prior to surgery