WSPOS Global Case Report Quiz Case 18

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CASE REPORT

- 12-year-old-male, presented in 2011 with abnormal head position to the right, and inward deviation of the right eye
- He was involved in a motor vehicle accident in 2005 and was diagnosed with right sixth nerve palsy & left partial optic nerve avulsion
- His right eye was operated twice elsewhere (in 2008 and again in 2010) for his esodeviation. Surgical reports were unavailable.
- Travels long distance, close follow-up is unlikely

EXAMINATION

- Visual acuity:
  - OD: 20/20
  - OS: Hand motion
- Anterior segment:
  - Normal, except left RAPD
- Posterior segment:
  - OD; Normal OS; optic atrophy
- Fails the cotton tip test for a possible topical anesthesia BTX injection.

2011 => OD: 20/20, OS: HM; RIGHT TURN 40°, CHIN UP 10°

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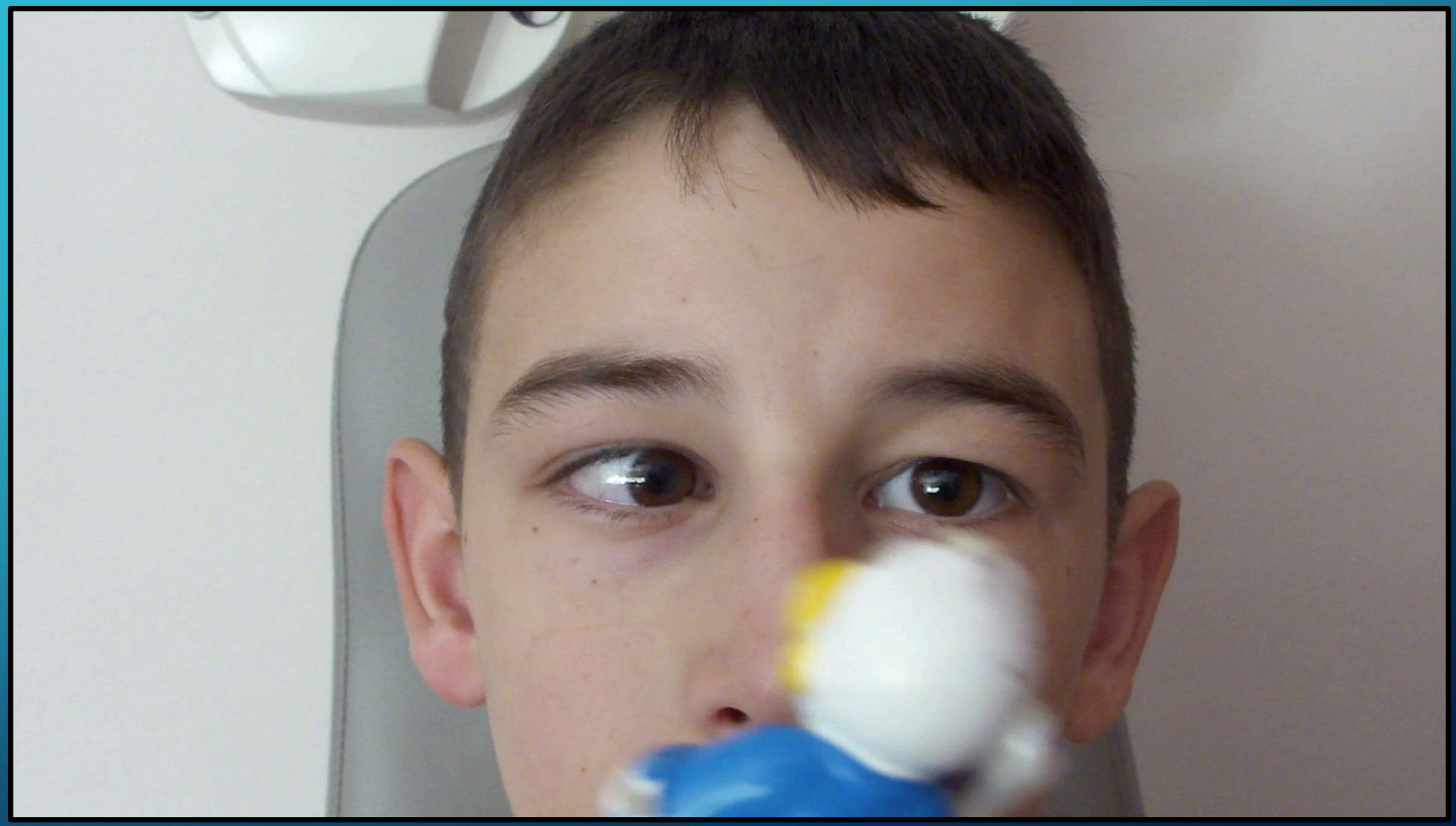
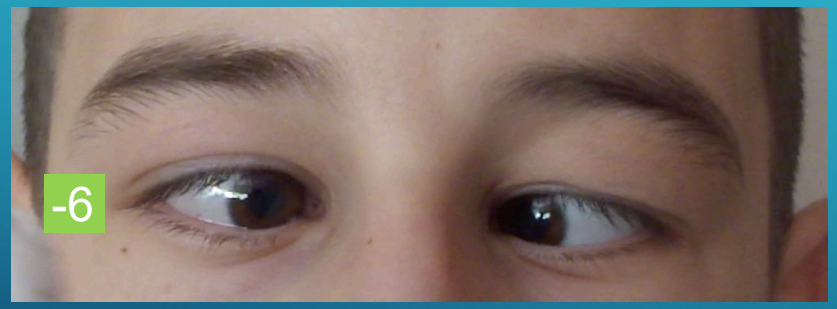
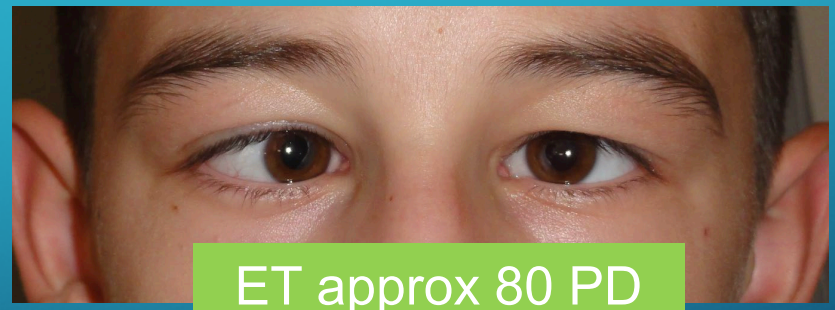
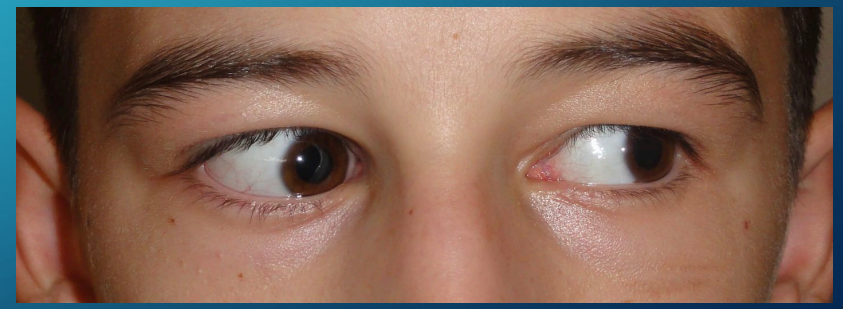
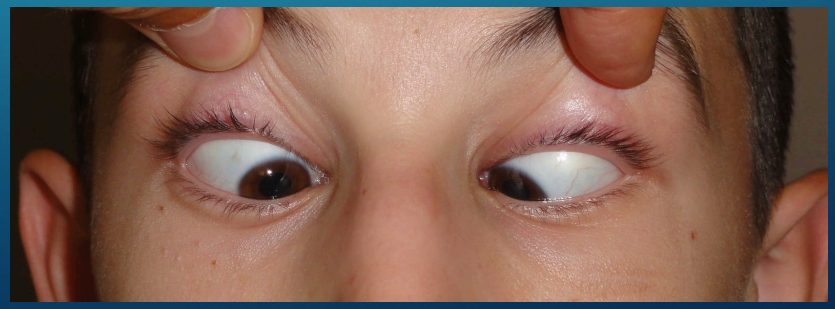


OD: 20/20, OS: HM (Right eye fixing)
Right complete 6th nerve palsy, ineffective 2 surgeries
Left traumatic optic nerve avulsion and atrophy









Fixing RE received 2 unknown procedures

Main complaint is head posture

RE needs to be adressed again

SURGERY UNDER GENERAL ANESTHESIA

- TRACTION TEST: +2.5 to the right in RE (MR is tight)
- Right MR was found 12.0 mm from the limbus
- No scar tissue was evident on the rest of the EOMs

HOW WOULD YOU MANAGE THE CASE NOW?

A. Monovertical Rectus Transposition

B. Vertical Rectus Transposition

C. Vertical Rectus Transposition with cilliary vessel sparing

D. Vertical Rectus Transposition with augmentation sutures

E. Vertical Rectus Transposition, Nishida modification

F. More surgery on the 12 mm recessed right MR

G. Other

WHAT DID WE DO?

- Right Vertical Rectus Transposition with ciliary sparing (We were able to spare the cilliary vessels of the IR, but unfortunately not the SR)
- RE maintained the ET position and the traction test was still positive following the VRT
- Buckley augmentation sutures were placed
- Traction test was relieved. However, there was about 20-30 PD of ET by Hirchberg test on the table.

The traction test was negative after VRT. However, there is residual ET of 20-30 PD after VRT, intraoperatively.

WOULD YOU CONSIDER ADDITIONAL SURGERY? IF SO, WHAT PROCEDURE WOULD YOU OPT FOR?

A. Simultaneous right LR plication

B. Simultaneous BTX-A injection to the right MR under general anesthesia (refuses topical anesthesia)

C. Other

D. Leave alone

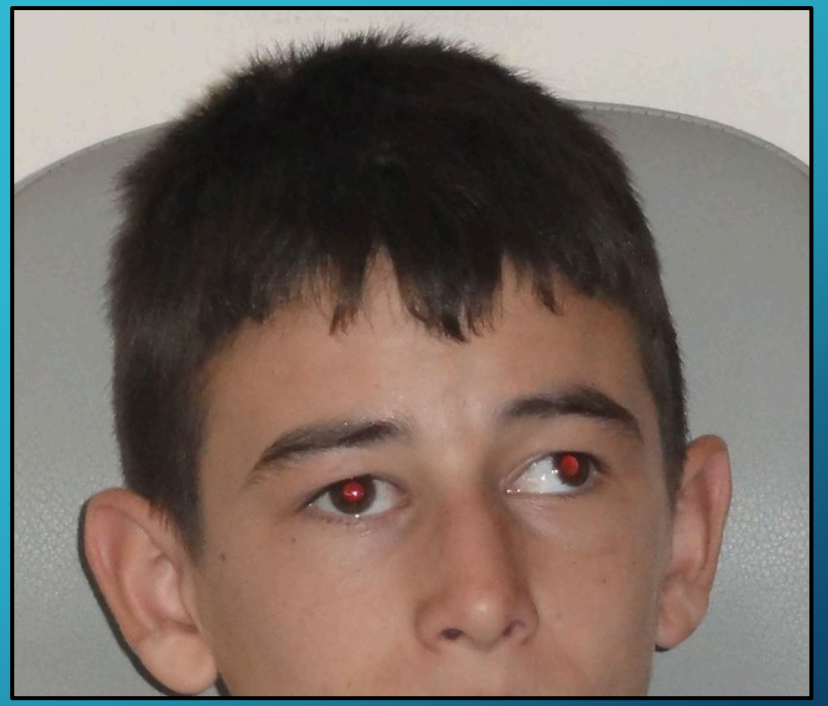
WHAT DID WE DO?

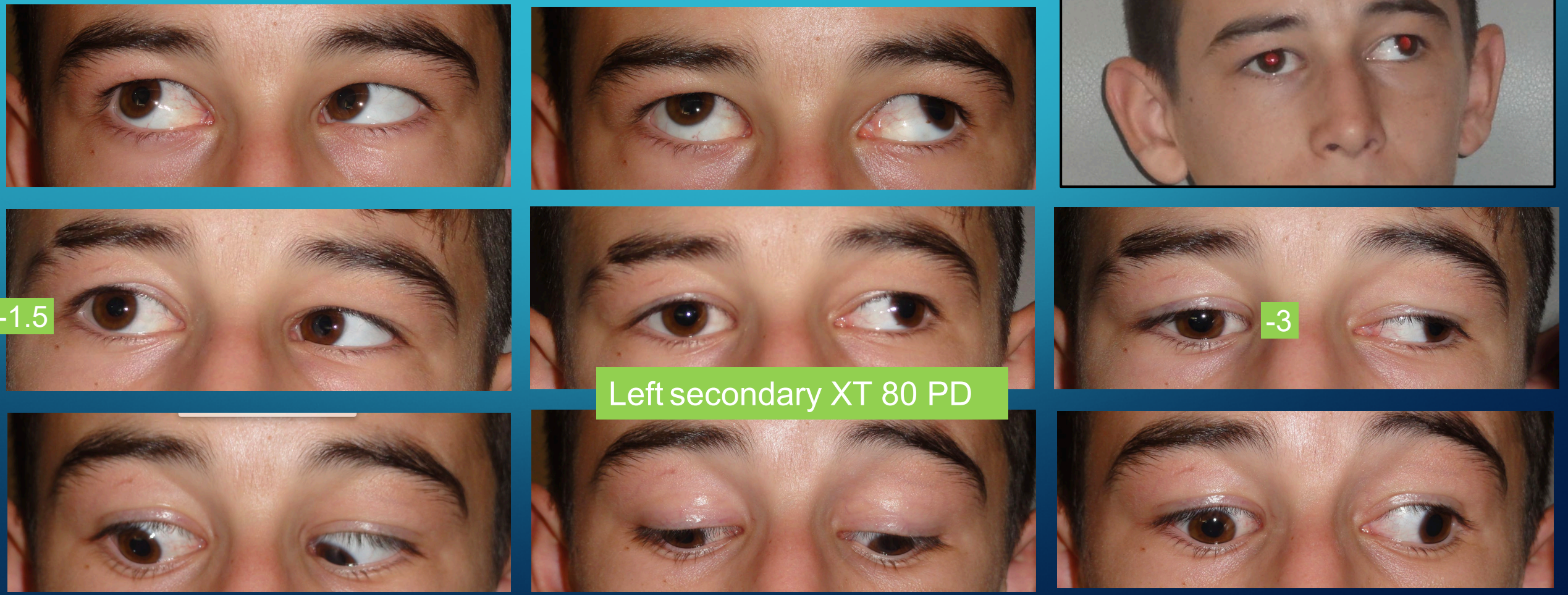
- He failed to pass the cotton tip test before surgery for any topical / local anesthesia
- 5 units of BTX-A injection to the right MR under general anesthesia.

2012 => ONE YEAR AFTER SURGERY

Head posture is now 5 -10 deg to the left, but family is happy

Except, he now complains about the left XT





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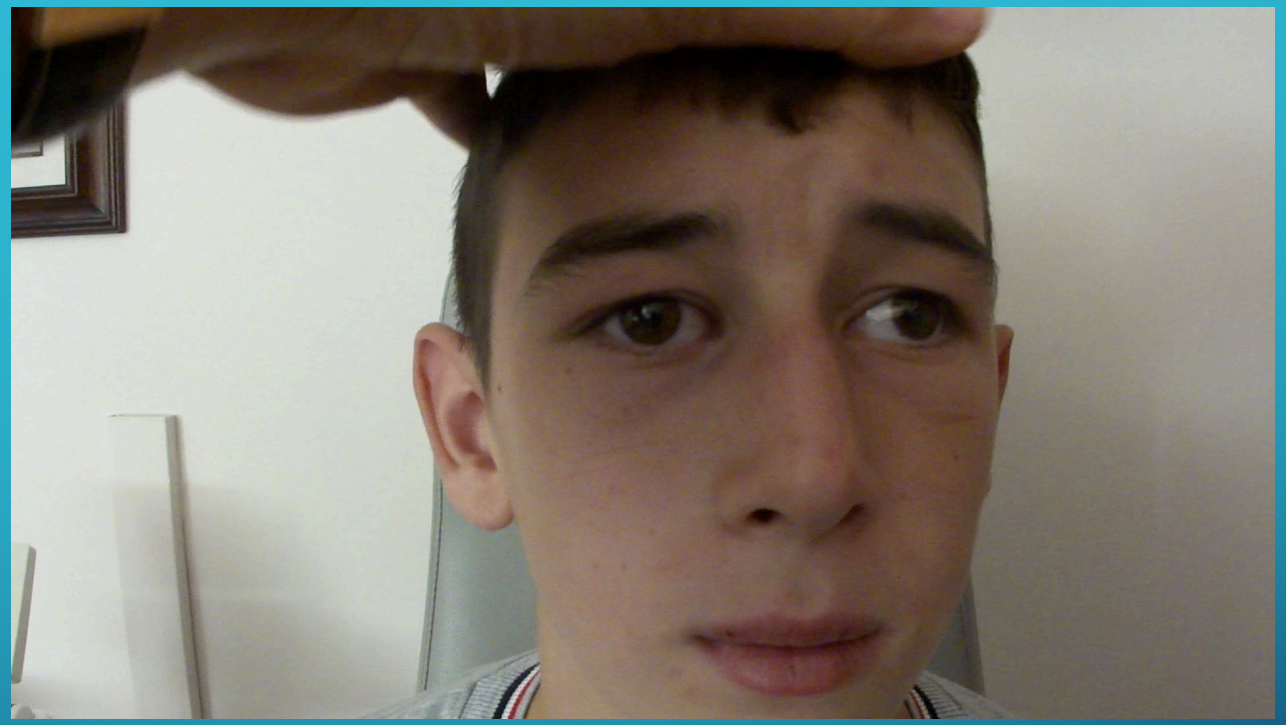


- Family is happy about the position of RE and resolution of head posture
- They want to have further surgery for left outward deviation.
- The saccades in the LE are faster than the RE

HOW WOULD YOU MANAGE THE CASE NOW?

A. Right MR advancement

B. Removal of Augmentation sutures on VRT

C. Left MR resection+LR recession

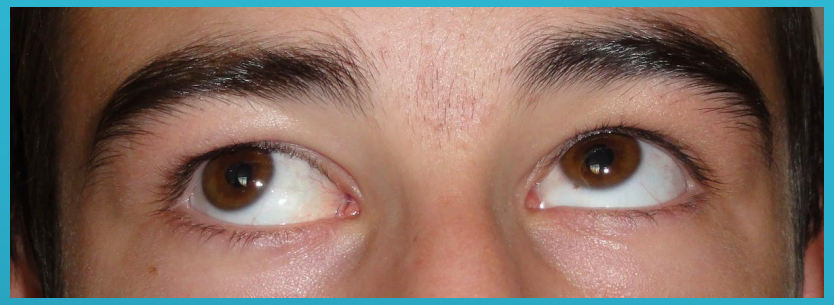
D. Left LR periosteal fixation

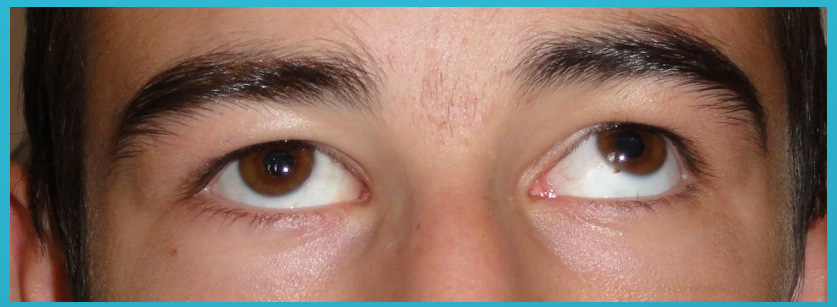
E. Other

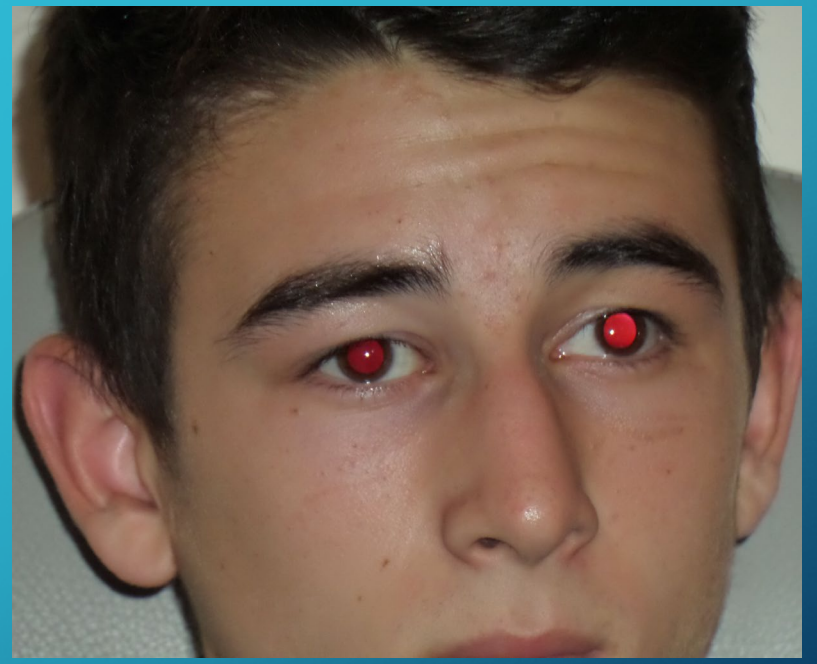
WHAT DID WE DO?

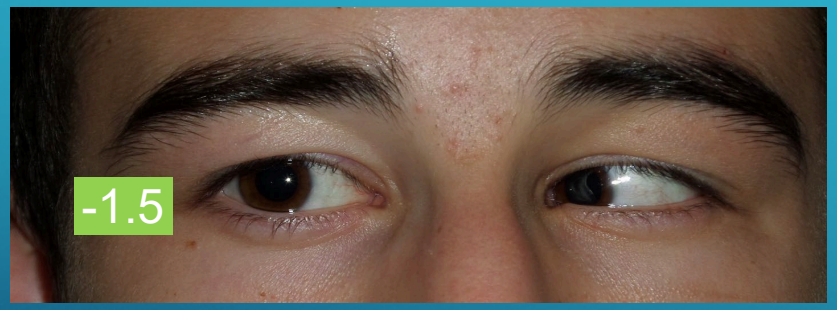
- The secondary deviation in the LE is because of previous recessions in the MR
- In order to prevent the secondary drifts of the LE, either one of these procedures (MR recession and/or VRT) must be addressed
- However, the patient had 3 operations on the only seeing RE and family denied further surgery on this eye
- Left LR periosteal fixation was done with a black silk suture for easier future identification if needed

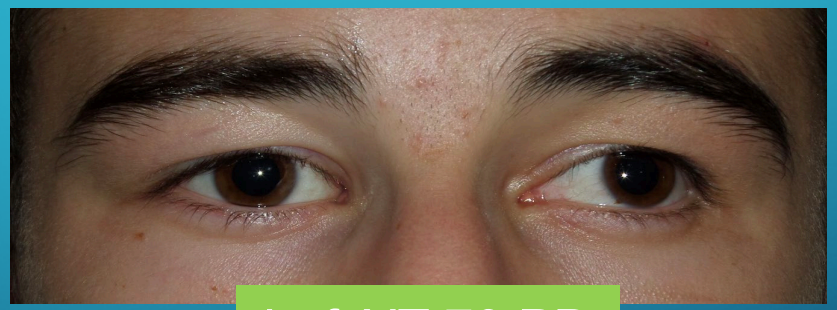
2014 => 2 YEARS AFTER SURGERY



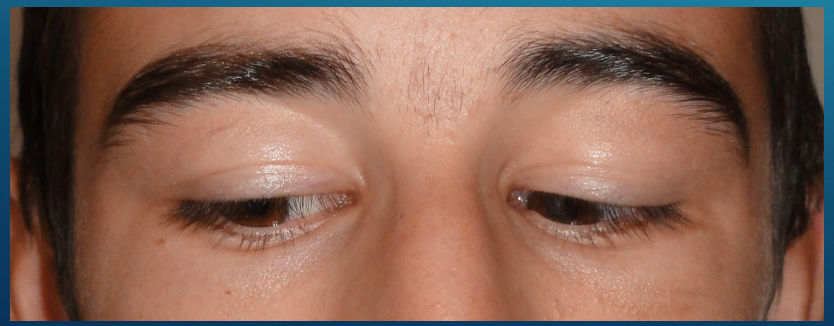


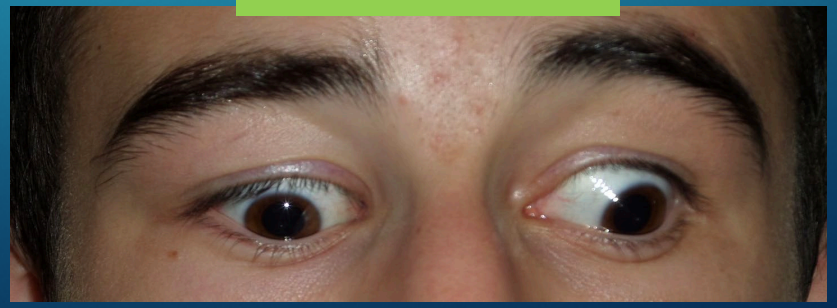






Left XT 70 PD





2014 => 2 YEARS AFTER SURGERY

- He wants to have further surgery for exodeviation in the LE
- The saccades in the LE are faster than the RE
- He does not want any surgery for RE

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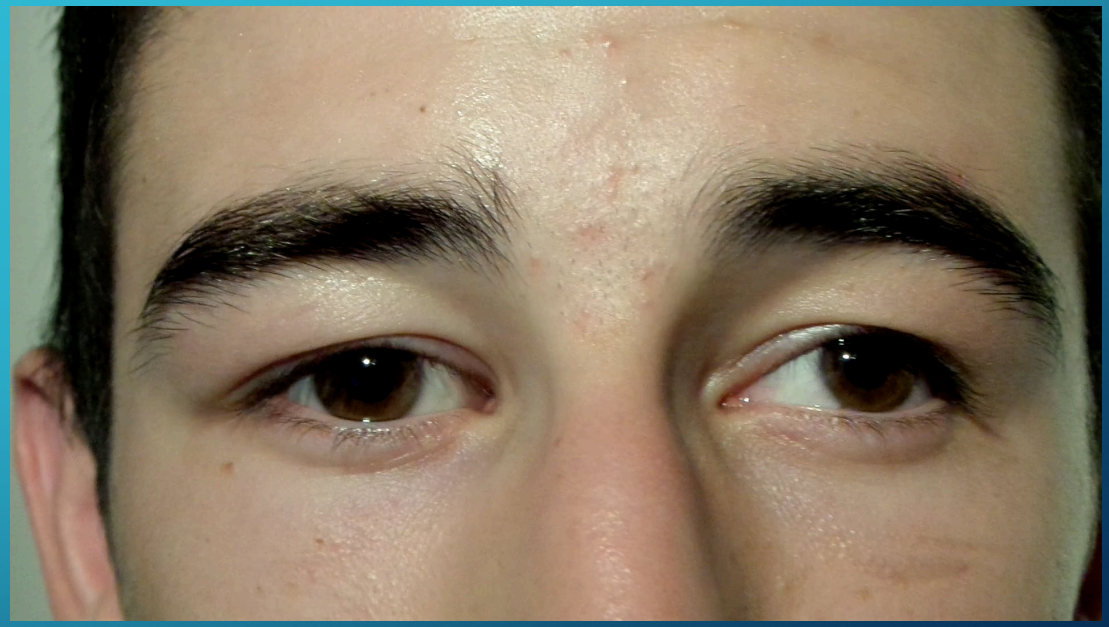
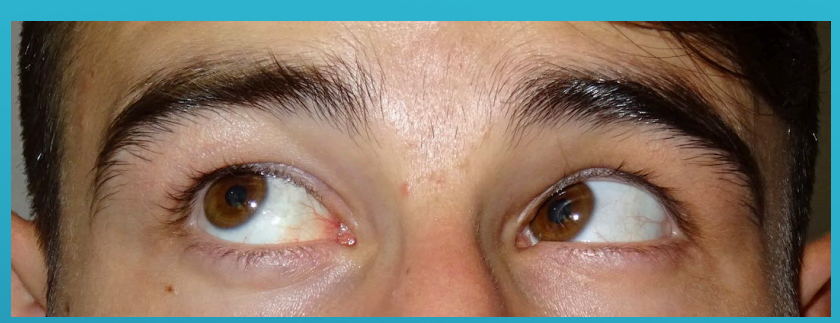
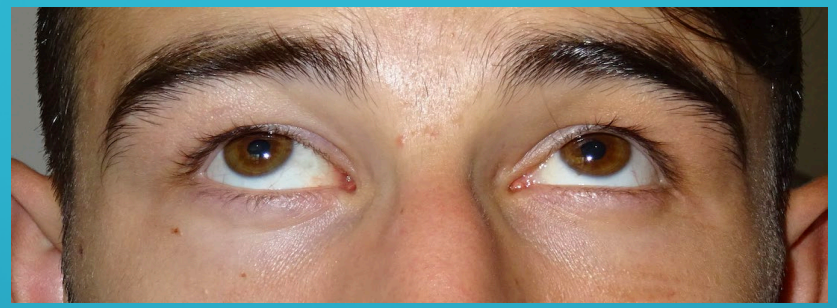


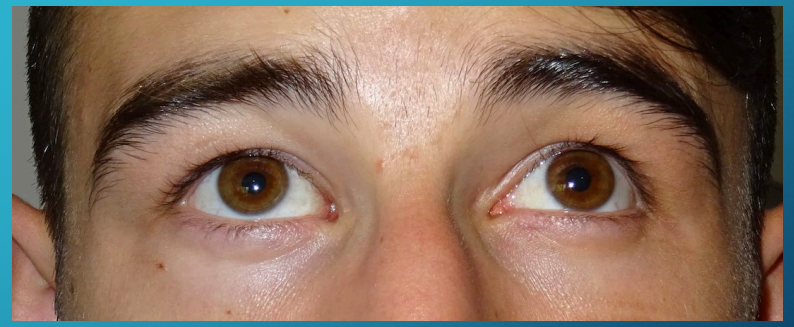
SURGERY: Left LR made a thin insertion at 13 mm from limbus. This insertion and left IO were disinserted. Left MR 5.0 mm plication was done.

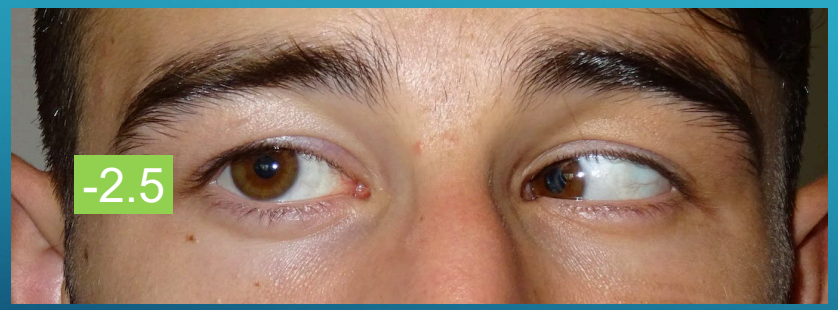
2016 => 2 YEARS AFTER SURGERY

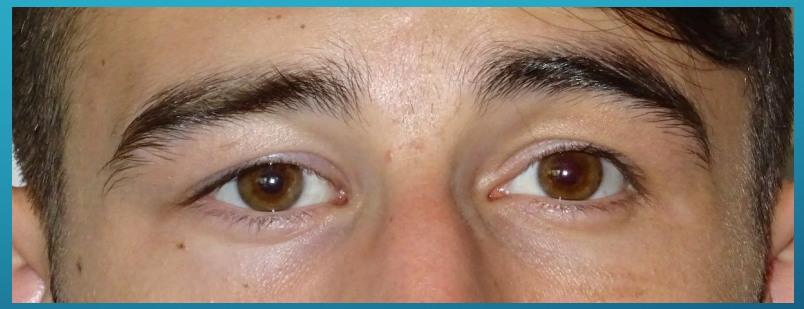
Orthotropic with left head turn 5°

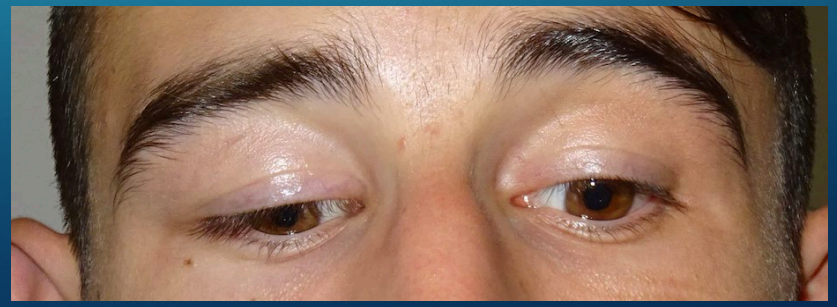




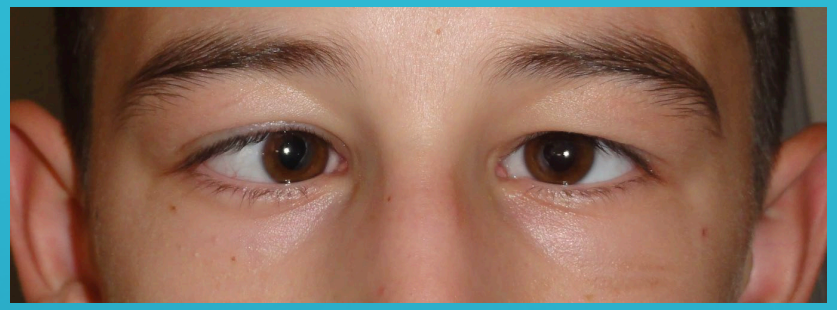




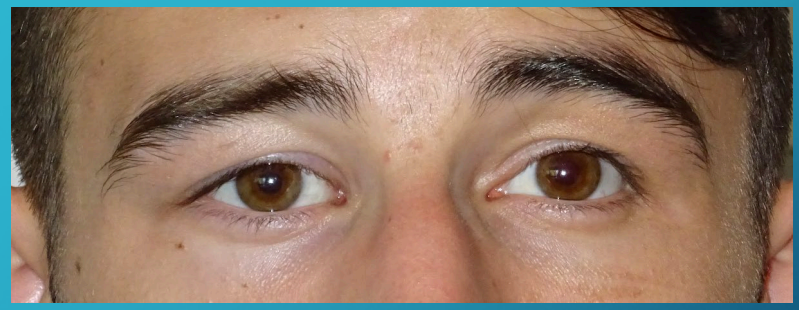




2011



2016



1- Right VRT with Buckley augmentation sutures and Right MR BTX-A

2- Left LR periosteal fixation

3- Left MR plication + Disinsertion of thin Left LR insertion and Left IO

COULD OUR EXPERTS PLEASE ANSWER THESE QUESTIONS IN ADDITION TO THOSE ASKED EARLIER (ON SLIDE NUMBERS 7, 10 & 14)?

- 1. This patient had a history of two previous surgeries in his only seeing RE. What is the risk of loosing sight (the only seeing eye) because of ASI or endophthalmitis with a 3rd procedure?
- 2. Do you think an informed consent would prevent a law suit in case of a sight threatening complication?
- 3. Lateral rectus simple periost fixation didnot totally eliminate abduction and the reinseriton to the sclera. In order to achieve complete reduction of the abduction, is resection and burying of the LR with Tenon's sufficient? Is oblique muscle weakening essential in order to achieve such an effect?
- 4. How would you approach to the disfiguring difference of the motility pattern because of the longer and faster saccades of the left eye of this patient?
- 5. How would you compare the different transposition techniques in terms of efficiency and/or ease of revision?

THANK YOU