

The Elegance of Just Look Retinoscopy

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Elegance

- Elegance - the quality of being pleasingly ingenious and simple; neatness, i.e., the simplicity and elegance of the solution.
- We can describe the elegance of Just Look Retinoscopy as a simple and ingenious means of observing human behavior and development through the visual process
- Glen T. Steele, O.D. FCOVD FAAO

Elegance – In the most Simple Form

- Pick up the retinoscope and turn it on
- Point toward the patient's eyes
- Look at the patient through the peephole with particular emphasis on eyes
- Begin with no movement and then add VERY small movements
- Marvel at what you observe

Elegance

- **We have a direct observation of the process by which the patient is reaching out to connect with the outside world.**
- The simple elegance of Just Look Retinoscopy gives us insight into where a child or adult is during their process of development or recovery from trauma.

Elegance

- Following birth or traumatic event, the patient's life is overflowed with "stuff." It is a sensory overload until they begin reaching with each process.
- Initial reaction to a sensory stimulus is a total body action from all processes at the same time.
- As the patient begins to reach and sort out the stimulus, there is more controlled reaction to any stimulus

Elegance

- Moving from surprise to control begins with the reaching process – looking, listening, tasting, smelling, feeling, moving, etc.
- As they gain control through the motor aspects and as the baby focuses through the process that satisfies their curiosity, there is a decrease in reaction from all processes

Elegance

- Through Just Look Retinoscopy, we are able to observe patient behavior through each of their “Reaches”
 - Visual reach
 - Auditory reach
 - Olfactory reach
 - Gustatory reach
 - Somatosensory reaching
 - Kinesthetic reaching
 - Cognitive reaching

Elegance

- All development must come from within and reach out. Development is a voluntary process
- No amount of parents preparing the way, research, educational videos and apps, can take the place of developing the internal curiosity necessary to move from sensory surprise to intentional and purposeful reach.
- **The opportunity for Development never ends nor does it expire**

Elegance

- Ultimately, true understanding comes from connecting with our patients, appreciating their current clinical situation, and figuring out how normal function and processes that evolved during development can go awry, even as homeostasis remains the body's number one systemic priority.
- This appreciation can be assessed through the use of retinoscopy in its most elegant fashion
- adapted from Art Epstein, Optometric Physician blog

The Elegance of Just Look Retinoscopy

- What we do is not about eyes alone. What we do through our work with eyes is changing lives. That is why it is so important to know about a patient's life and their family
- Just Look shows the many qualities of all stages of reach and gives much further insight into what adaptations, alterations, and changes a patient is going through to meet the challenges in their daily life.

The Elegance of Just Look Retinoscopy

- As expectations become more sophisticated through time, how is the patient reacting within the developmental process?
- **With Just Look, it is important to pay more attention to how they got there as to what the findings are (numbers).**

The Elegance of Just Look Retinoscopy

- If we don't change their life, anything we do is for our benefit and not theirs.

The Elegance of Just Look Retinoscopy

- “All I have to do to figure out how much to move my body... is to duplicate with my body the movement specified by my eye.” Alain Berthoz

The Elegance of Just Look Retinoscopy

- Keep in mind that a measure of refraction is a result of a defined formed pattern that has emerged from the repetitive process of looking
- One should never abandon using the retinoscope to assess and confirm the process of human functioning

The Elegance of Just Look Retinoscopy

- **We need to get to know the research and testing methods so well that when our observations don't agree with these tests, the alarm begins to sound in our minds.**
- From there, curiosity leads us into new pursuits of knowledge, and ultimately better patient care will arise as a result.
- Aaron Salzano, O.D. in COVD Travel grant award submission

The Elegance of Just Look Retinoscopy

- It is one of those things that you have to do over and over and over to get a more in-depth understanding.
- When you see one response – trust what you see even though you don't know what it means
- I now understand why it was so hard for me to grasp Streff and Getman and Kraskin's concepts - I had not done it enough FOR ME.

The Elegance of Just Look Retinoscopy

- Look at the configuration, stability, and pattern when determining management
- **If variability is noted, a refractive condition is not a permanent part of the structure.** This includes, astigmatism, anisometropia, scissors motion, etc.
- Noting this variability is simply an observation of how the patient is going about the process of LOOKING and reaching

The Elegance of Just Look Retinoscopy

- Emphasis on refraction should be minimized and reserved until later in development
- Refraction is the technical aspect – management is the doctor aspect
- Measurement of refraction should be as precise as possible but the final prescription involves consideration of many variables

The Elegance of Just Look Retinoscopy

- **Using a retinoscopy rack or even a phoropter disrupts the binocular process which changes the assessment of refraction.** Consider an assessment without using them as much as possible.
- An example would be trying to scope a patient using a retinoscopy rack who has nystagmus and shows greater nystagmus under monocular conditions.

The Elegance of Just Look Retinoscopy

- Motion changes in Just Look Retinoscopy are often observable when loss of binocularity occurs. For example, the retinoscopy reflex on a recent young patient showing intermittent XT was intriguing:
 - RE fx – neutral RE - slight with LE
 - LE fx – neutral LE - slight with RE
- The reflex changes when retinoscopy observation moves from RE to LE.

The Elegance of Just Look Retinoscopy

- How does prescribing influence other postures that are not typical in development?
 - **Prescribing fully for anisometropia reinforces the asymmetric posture**
 - **Likewise, prescribing fully for astigmatism reinforces the astigmatic posture**
- If there is variability, the “refraction” is not stable

The Elegance of Just Look Retinoscopy

- It may sometimes be necessary to prescribe and even reinforce the asymmetric posture but try to minimize that as often as possible.

The Elegance of Just Look Retinoscopy

- Kids who give “false responses” or are “malingering” on testing because they “want glasses” will still show a bright reflex on Just Look because they have to “LOOK” in order to call the “wrong” letter or to call a different image.
- G. T. Steele, O.D. FCOVD FAAO

Linking Bubba's Nine A's to Just Look Retinoscopy

- Pre-activation
 - Generally dull reflex
 - Changes in motion are not present
 - Configuration is not fully consistent throughout
 - Not reactive to anything that comes into their space
 - Might scissors motion be related to the beginning of looking – a stage of pre-activation??

Linking Bubba's Nine A's to Just look Retinoscopy

- Activation - Arousal
 - Reflex becomes variable as the change in looking responds to internal curiosity – looking, listening, etc. are voluntary processes
 - Scissors motion may also show here
 - With (outward), against (inward), anisometropia or astigmatism
 - Reflex is periodically brightening but quite variable
 - An indication of the patient's beginning attempts to connect with the outside world

Linking Bubba's Nine A's to Just look Retinoscopy

- Awareness
 - Begins to focus attention – less extremes of with, against, aniso or astigmatism
 - Not fully stable but showing a defining pattern
 - May continue to show intermittent scissors motion
 - Periods of looking quieten and stabilize the reflex whereas when not looking, the reflex is not stable
 - Periodic connection with the outside world becoming established

Linking Bubba's Nine A's to Just look Retinoscopy

- Attention
 - Reflex becoming more stable and bright – a forming pattern
 - Areas may be brighter as they begin to look and sustain attention
 - Reaching visually with significant decrease in variability
 - Developing consistency in connection with the outside world
 - May show scissors motion as they begin the process of reaching

Linking Bubba's Nine A's to Just look Retinoscopy

- Anticipation
 - Found it but can't get to it
 - Reflex may become brighter but configuration is now less full
 - May go into against as they visually manipulate
 - Observation of how the patient is making connection with objects within their area of awareness
 - Observation of pupil size
 - Against motion is a primary movement as they try to internalize

Linking Bubba's Nine A's to Just look Retinoscopy

- Action
 - Reaches for target with eyes
 - May bring hands into play
 - Motion shows the manner in which they are looking – against (short of target), with (beyond target), astigmatism (holding on to home base while reaching), aniso and astigmatism (holding on to home base while reaching)
 - Corresponding changes in pupil size

Linking Bubba's Nine A's to Just look Retinoscopy

- Adjustment
 - Shows with motion as they become aware that they missed the target – reaching out again
 - Against when recalculating the process and making the next attempt
 - Release and "re-focus"

Linking Bubba's Nine A's to Just look Retinoscopy

- Accomplishment
 - Really bright and a slight move into against as the initial phase of the task is accomplished then releases to with and less bright configuration

Linking Bubba's Nine A's to Just look Retinoscopy

- Adaptability (Manipulation*)
 - Considerable variation between brightness increasing with slight against to releasing into with a less bright appearance.
 - Minor variations as they manipulate
 - When object goes into mouth, eyes may initially release into with
 - When manipulating in the mouth, may then go into against
 - Observation of “reaching” responses through the process of vision



Linking Bubba's Nine A's to Just look Retinoscopy

- Adaptability (Manipulation*)
 - May continue to manipulate with other processes as they let vision temporarily go but it quickly returns as they “reach”
 - The changes in motion give us direct observation of where the patient is directing their attention
 - **Reaching through any process will be reflected in vision**

Linking Bubba's Nine A's to Just look Retinoscopy

- Acquittal
 - Initial release into with – release and “re-focus”
 - Momentarily returns to original pattern of pre-attention and activation
 - Begins process all over even with activation phase
 - Release is a disruption whether simply letting go or looking with intention to the next “event”
 - Scissors motion is an indication of a disruption

Patient FM – 2 ½ months old male

- Born pre-term at 36 weeks
- Put on CPAP machine at hospital due to lack of oxygen
- Mother felt he was not “developing normally” as he was not following or social smiling – she had four others
- He would only turn his head in response to voices
- Pediatrician recommended ophthalmology consult, MRI, and early intervention

Patient FM – 2 ½ months old male

- Initial examination – 4/18/18
 - Did not fix or follow lights, toys or faces
 - Brückner showed equal reflexes
 - Just Look showed no brightening or reflex changes over several seconds and numerous non-sound targets - visual reflex not in activation stage
 - Anterior and posterior segment findings appeared normal with dilation

Patient FM – 2 ½ months old male

- Recommendations
 - Initial response until proven otherwise was delayed visual maturation per Duckman (Duckman article given to parent)
 - Activities given to parent in order to activate the visual process
 - RTC 3 months

Patient FM – 2 ½ months old male

- Follow-up – 7/30/18 – 5 mos. old
 - Parent reported he had multiple exams by ped OMD who referred for MRI (neg)
 - When I entered the room, he looked up at me with bright shiny eyes

Patient FM – 2 ½ months old male

- Mother reported that around four months of age, he started fixating and following with his eyes and reacting to bright high color contrast toys
- He was now smiling and making eye contact
- During examination
 - Fix and follow
 - Equal Brückner
 - Just Look was now reactive to visual targets and showed +1.00
 - More articles and activities given to parent

Patient FM – 2 ½ months old male

- Follow-up – 10/29/18 – 8 mos. old
 - Mother's first statement was that she believes FM's vision is now "normal"
 - He can see and locate small objects and pick them up with a "pincer grip"
 - Brückner showed equal reflexes
 - Just Look was quickly reactive as targets were introduced
 - He looked at every person that came into the room – in the eyes

Patient FM – 2 ½ months old male

- Gross stereo noted with keystone Basic Binocular
- Quickly engaged when small toys and lights were used for fixation
- The best
 - Parent asked the student if she had read the Duckman article – when told no, the parent encouraged her to do so right away

Patient FM – 2 ½ months old male

- Notes
 - Definite Delayed Visual Maturation
 - What if we had waited?
 - Does it matter if the child might never have started looking?
- The child gave the appearance of being “blind” but through basic guidance activities and a mother who was aware of what he should be seeing, the baby is much farther along than if we had waited

The Elegance of Just Look Retinoscopy

- The point is...we often miss the miracles and majesty of Just Look Retinoscopy due to our lack of use or skepticism
- When we draw lines of limitation in the sands of our life experience and expectation, we limit the eyes of observation
- What does that do for the patient?
- Just Look Retinoscopy takes us to an awareness beyond what we might have experienced or what we can explain

The Elegance of Just Look Retinoscopy

- It places us on the cutting edge of a deeper understanding of how a patient is going about LOOKING. There is a deeper truth to be seen if one will just take the time.
- Join the adventure of the next and deeper step - Just LOOK
- adapted from David Cox Friday Meditation 10-26-18 – What Can the Blind See?

