

VEP Testing in Clinical Practice

VEP Case Review: Glaucoma Suspect

Case ID: 1GS

Patient Work-Up	
Gender	Male
Age	47
Ethnicity	White
Complaints/Symptoms	None
Family History	Grandmother glaucoma
IOP (mmHg) OD	15
IOP (mmHg) OS	16
Pachimetry (μm) OD	510
Pachimetry (μm) OS	526
Refraction OD	Plano
Refraction OS	Plano
BCVA OD	20/20
BCVA OS	20/40
Preliminary Diagnosis	Glaucoma Suspect

Tests Performed

- **Visual Field:** within normal limits OD and a diminished response in the superior hemifield (arcuate defect) OS.
- **OCT:** shows a thinning of the ganglion cell complex and RNFL OU.
- **VEP:** shows a delay in low contrast latencies OU and also a delay in the high contrast OS.

Conclusion

VEP confirms ganglion cell dysfunction. Since there is no evidence of ocular hypertension, the clinician made a preliminary diagnosis of Low Tension Glaucoma.

Visual Field - OD

Single Field Analysis

ye: Right

Name:	
ID:	

DOB:

Central 30-2 Threshold Test

Fixation Monitor: Gaze/Blind Spot

Stimulus: III, White

Pupil Diameter:

Date:

Fixation Target: Central

Background: 31.5 ASB

Visual Acuity:

Time:

Fixation Losses: 0/13

Strategy: SITA-Fast

RX:

Age:

False POS Errors: 4 %

False NEG Errors: 0 %

Test Duration: 03:16

Fovea: OFF



	1	1	2	2				
	0	1	1	2	2	3		
-1	0	0	0	2	2	3		
0	-1	-1	0	0	1	2	3	
0	-1	-3	-1	0	0	1	3	3
-2	-1	-2	0	-1	0	0	1	2
3	0	-1	0	-1	-2	-1	0	2
2	-1	1	0	-3	-1	0	0	
1	1	1	0	-1	0			
2	0	-1	-1					

	-1	0	0	1				
-1	-1	0	0	1	2			
-2	-2	-2	-1	-2	1	1	1	
-1	-2	-2	-2	-1	-1	-1	1	2
-1	-3	-4	-2	-2	-2	0	1	2
-4	-2	-3	-2	-3	-2	-2	0	0
2	-2	-3	-2	-3	-3	-3	-1	0
1	-3	-1	-1	-4	-2	-2	-1	
-1	0	0	-2	-2	-2			
1	-2	-2	-2					

GHT
Within normal limits

MD -0.05 dB
PSD 1.50 dB

Total
Deviation

Pattern
Deviation

:: < 5%
⊗ < 2%
⊗ < 1%
■ < 0.5%

Visual Field - OS

Single Field Analysis

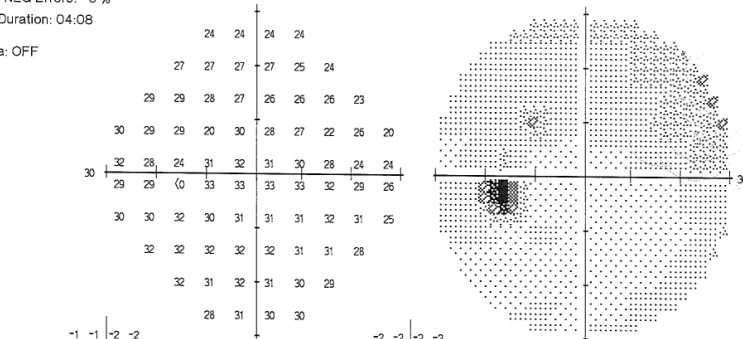
Eye: Left

Name:	DOB:
ID:	

Central 30-2 Threshold Test

Fixation Monitor: Gaze/Blind Spot	Stimulus: III, White	Pupil Diameter:	Date:
Fixation Target: Central	Background: 31.5 ASB	Visual Acuity:	Time:
Fixation Losses: 1/12	Strategy: SITA-Fast	RX:	Age:
False POS Errors: 0 %			
False NEG Errors: 0 %			
Test Duration: 04:08			

Fovea: OFF



-1 -1 -2 -2	-2 -2 -2 -2
0 -1 -1 -1 -3 -4	-1 -1 -2 -1 -4 -4
0 0 -2 -3 -4 -5 -4 -5	0 -1 -2 -4 -5 -5 -4 -5
0 0 -1 -12 -2 -5 -5 -9 -3 -8	0 -1 -2 -12 -3 -5 -5 -9 -4 -8
2 -2 -1 -1 -2 -2 -4 -6 -4	1 -3 -1 -1 -2 -3 -4 -7 -4
-1 -2 0 0 0 0 0 -2 -2	-1 -3 0 0 0 0 0 -2 -3
0 -1 0 -2 -2 -2 -1 0 0 -3	-1 -2 0 -3 -2 -2 -2 0 0 -4
1 1 0 0 0 0 0 -2	1 0 0 0 -1 0 0 -2
1 1 1 1 1 1 0	1 1 1 0 0 0
-1 1 2 2	-2 1 1 1

GHT
Outside normal limits

MD -1.69 dB P < 10%
PSD 2.82 dB P < 5%

Total Deviation	Pattern Deviation
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:: < 5%
⊗ < 2%
⊗ < 1%
■ < 0.5%

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HFA II 740-11768-4.1/4.1

OCT

ONH/GCC Symmetry Analysis Report

OD/OS

Patient:
Physician:
Operator:
Disease:

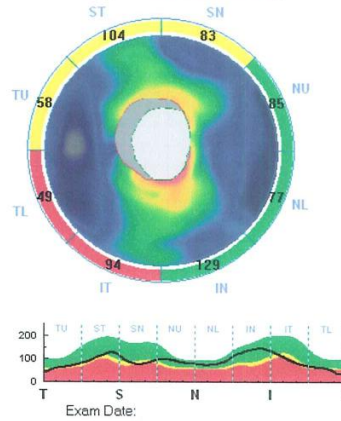
Gender:
ID:

Exam Date:
DOB(age):
Ethnicity:
Algorithm Version: A6, 1, 0, 4

OD GCC Significance



Optic Nerve Head Map



RNFL Parameters	OD	OS
Avg. RNFL	84.73	81.77
Sup. Avg	82.23	78.90
Inf. Avg	87.23	84.65

Nerve Head Parameters	OD	OS
Rim Volume (mm ³)	0.040	0.054
Nerve Head Vfm (mm ³)	0.084	0.095
Cup Volume (mm ³)	0.531	0.438

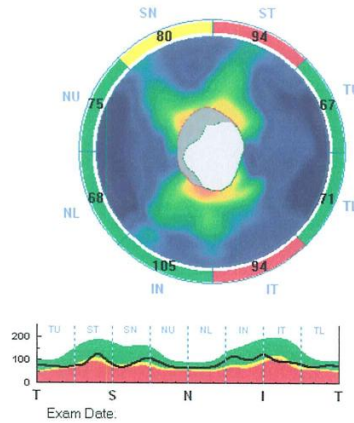
Nerve Head Parameters	OD	OS
Optic Disk Area (mm ²)	2.22	1.90
Cup/Disc Area Ratio	0.68	0.69
Horizontal C/D Ratio	0.78	0.91
Vertical C/D Ratio	0.89	0.83
Rim Area (mm ²)	0.71	0.60
Cup Area (mm ²)	1.51	1.30

p>5% Within Normal
p<5% Borderline
p<1% Outside Normal

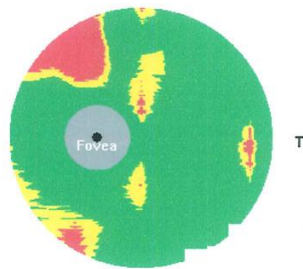
OS

Exam Date:

Optic Nerve Head Map

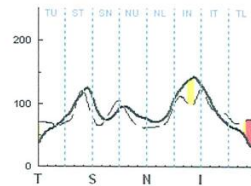


GCC Significance



GCC Parameters	OD	OS
Avg. GCC(μm)	86.57	91.24
Sup. GCC(μm)	86.63	86.87
Inf. GCC(μm)	84.49	93.61
FLV (%)	5.465	5.778
GLV (%)	12.177	9.263

Solid line - OD
Dash line - OS



Report Date:
Comments:
Signature:

Software Version #6, 1, 0, 4

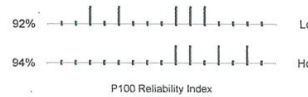
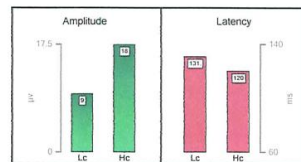
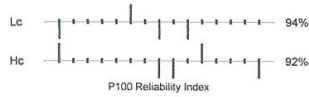
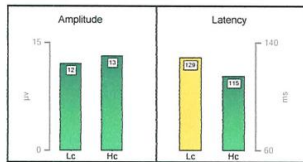
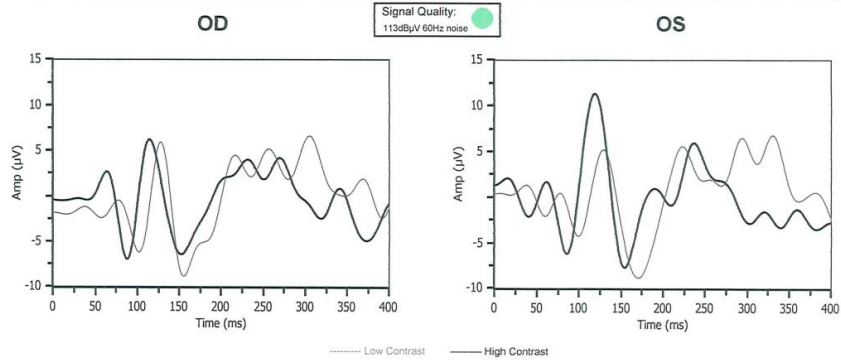
Defining the OCT Revolution



VEP - LX

DIOPSYS[®] NOVA-LX OFFICE BASED NEURO OPTIC VISION ASSESSMENT

First Name: _____ DOB: _____
 Last Name: _____ Age: _____
 Gender: _____
 Exam Date: _____ OD: S/C/Ax/Ad: _____ VA: _____
 Exam Time: _____ OS: S/C/Ax/Ad: _____ VA: _____



Parameters	OD	OS	Difference	Remarks
Amplitude Low Contrast μ V	12.1	9.4	2.7	
Amplitude High Contrast μ V	13.2	17.5	4.3	
Latency Low Contrast ms	128.9	130.9	2.0	Both Delayed
Latency High Contrast ms	115.2	120.1	4.9	OS Delayed

Operator: _____

Comments: _____

Signature: _____