

VEP Testing in Clinical Practice

VEP Case Review: Occipital Ischemic Stroke

Case ID: 9OS

Patient Work-Up	
DOB	12/1937
Gender	Male
Age	75
Ethnicity	White
Complaints/Symptoms	History of strokes (2)
Family History	None
IOP (mmHg) OD	15
IOP (mmHg) OS	18
Refraction OD	+3.25
Refraction OS	+3.25
BCVA OD	20/30
BCVA OS	20/30
Preliminary Diagnosis	Stroke

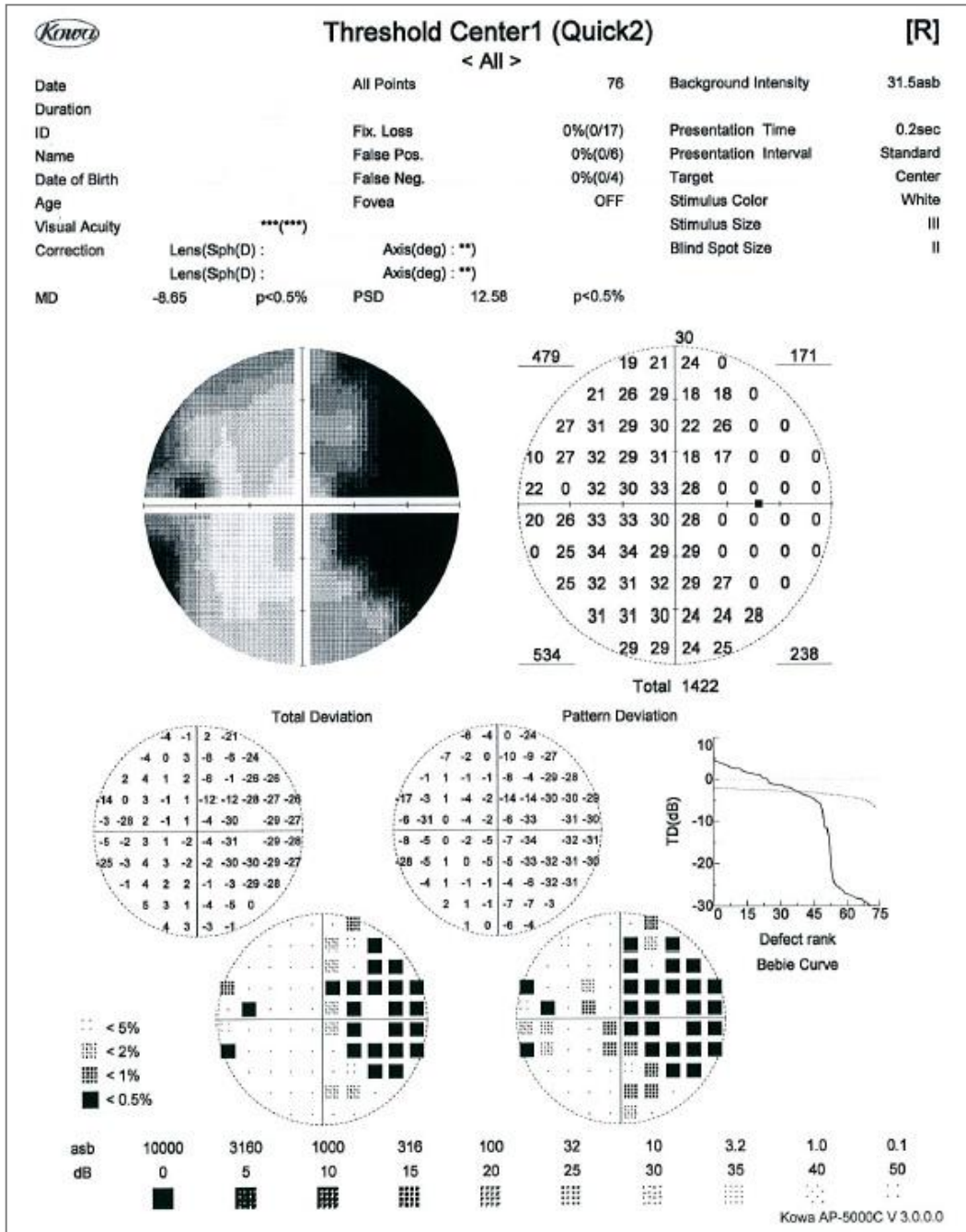
Tests Performed

- **Visual Field:** OD shows reduced response in the temporal hemifield that remains significant on the pattern deviation plot. OS shows reduced response in the nasal hemifield that remains significant on the pattern deviation plot. The defects are congruent and incomplete.
- **OCT:** shows all optic disc and RNFL parameters within normal limits.
- **VEP:** low and high contrast latencies OU are significantly delayed.

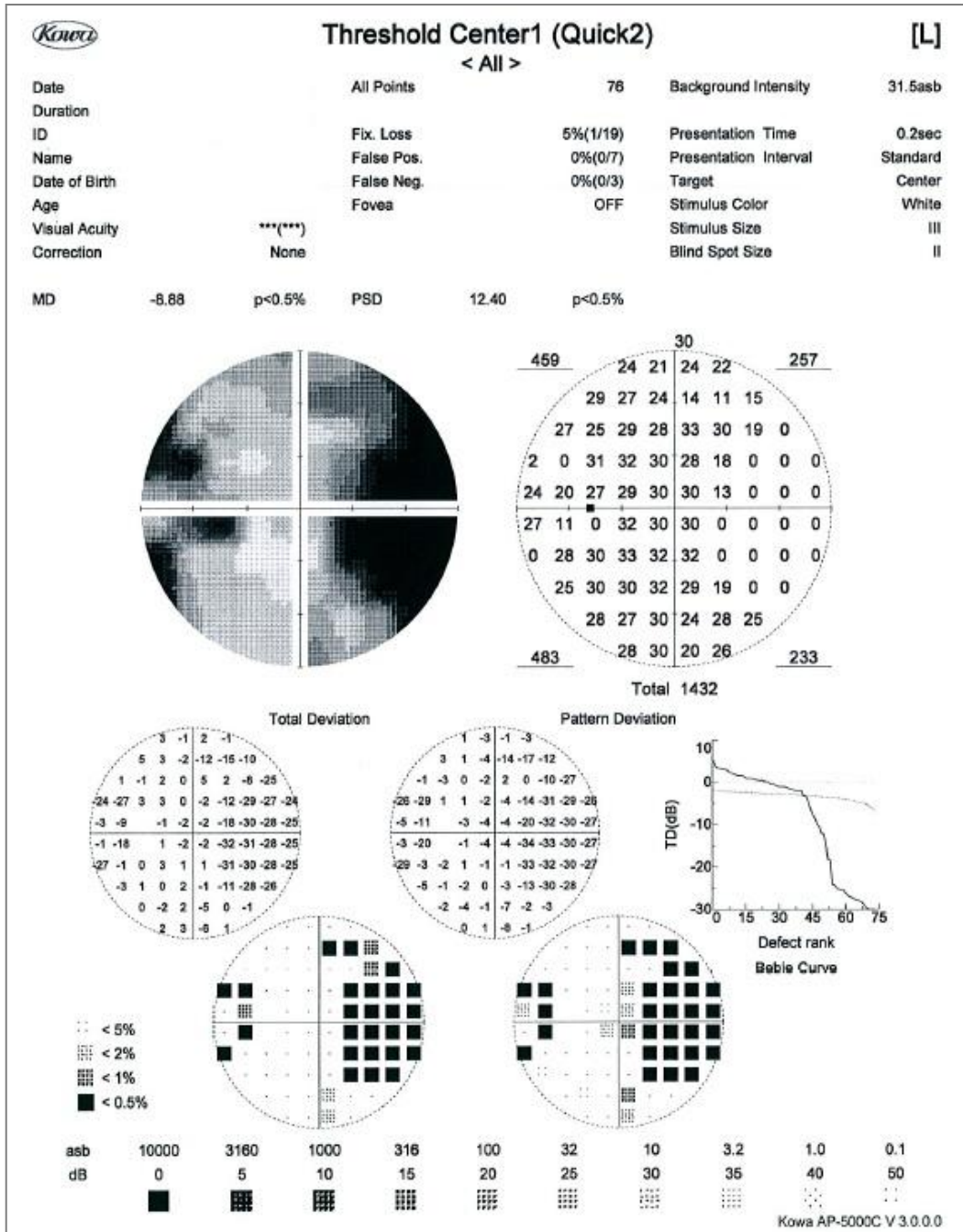
Conclusion

This functional disorder is not explained by the OCT structural analysis; however, the VEP delays correlate with the visual field which shows a complete abnormal function of the visual pathway. These findings support the diagnosis of stroke and the normal finding of the OCT is expected unless trans-synaptic degeneration is present. VEP must be repeated annually unless a new ischemic event occurs.

Visual Field - OD



Visual Field - OS



OCT

STRATUS OCT RNFL THICKNESS AVERAGE ANALYSIS Report - 5.0.1 (0376)

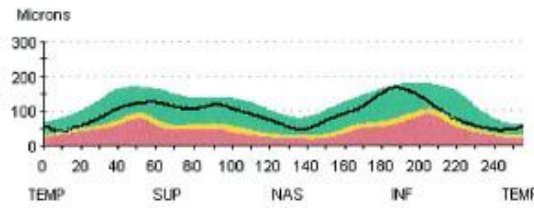
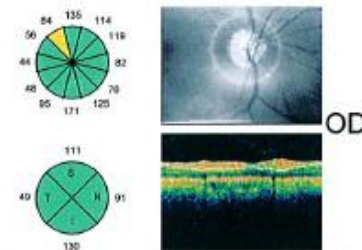
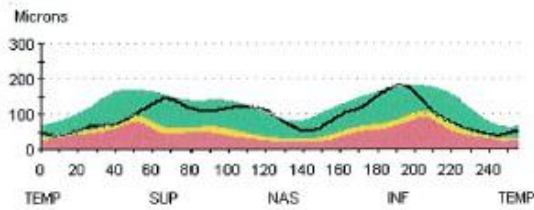


Scan Type: Fast RNFL Thickness (3.4)

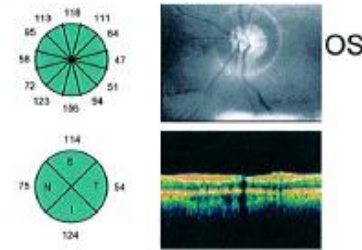
Scan Date: 10/21/2011

Scan Length: 10.87 mm

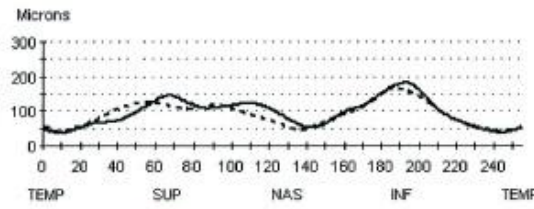
DOB:



Signal Strength (Max 10) 9

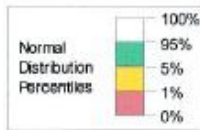


Signal Strength (Max 10) 8



— OD - - - - OS

OD	Scans used	1, 2, 3
OS	Scans used	1, 2, 3



	OD (N=3)	OS (N=3)	OD-OS
Imax/Smax	1.26	1.32	-0.06
Smax/Imax	0.79	0.76	0.04
Smax/Tavg	2.95	2.33	0.62
Imax/Tavg	3.71	3.08	0.63
Smax/Navg	1.60	1.67	-0.08
Max-Min	143.00	125.00	18.00
Smax	145.00	125.00	20.00
Imax	182.00	166.00	16.00
Savg	111.00	114.00	-3.00
Iavg	130.00	124.00	6.00
Avg.Thick	95.26	91.78	3.48

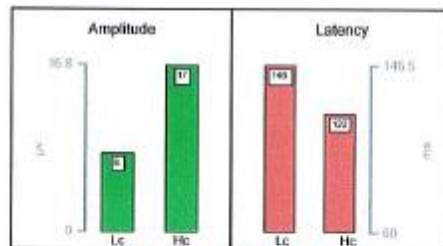
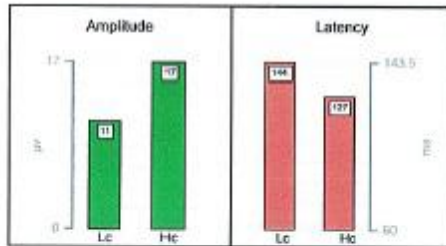
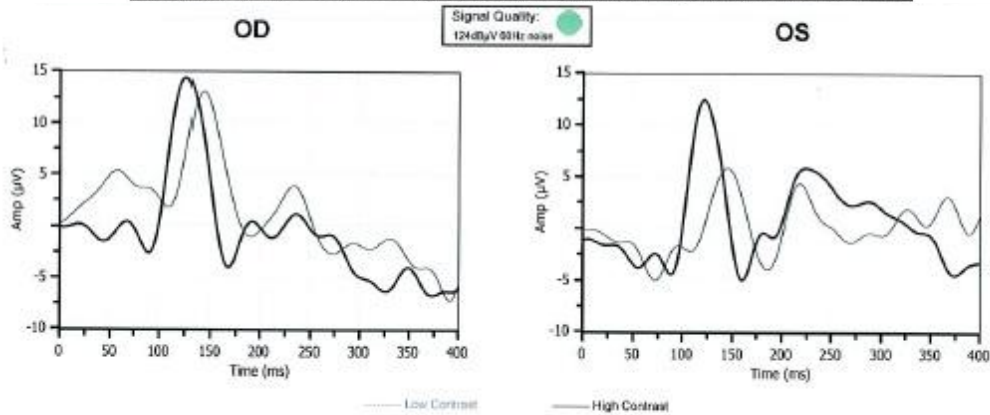
Signature:

Physician:

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	Unit	Remarks
Amplitude Low Contrast	11.16	8.01	3.15	μV	N/A
Amplitude High Contrast	16.97	16.83	0.14	μV	
Latency Low Contrast	143.55	146.48	2.93	ms	Delayed
Latency High Contrast	126.95	122.06	4.88	ms	Delayed

Classification based on statistics. Diagnosis is doctor's responsibility.

Comments:

Signature: