CHAPTER 13
CLINICAL CASES

INTRODUCTION

The previous chapters of this book have systematically presented various aspects of visual field testing and interpretation. To conclude, visual field interpretation is now put into a clinical context. In this chapter, 23 clinical cases are presented that show visual fields or visual field series of patients with glaucoma, neuro-ophthalmic disorder and retinal disease. The selected cases are model cases. They present typical defect patterns of the disease rather than unusual cases and are reliable, free of artifacts and can be fully trusted.

To link visual field interpretation to the clinical situation, the visual field results are presented in addition to other relevant clinical information. Background information on the patient’s history as well as other diagnostic results such as visual acuity, IOP, fundus images, OCT scans and MRIs which are relevant for clinical decision making, are shown. In all examples, visual acuity is expressed in decimal units for uniformity, but the Octopus allows users to select different units when performing the test. In each case, key diagnostic findings leading to disease diagnosis are presented and summarized.

An overview of all available cases is presented on the next page.
GLAUCOMA – SINGLE FIELD

1. Very early stage glaucoma (normal tension glaucoma)
2. Early stage glaucoma (normal tension glaucoma)
3. Early stage glaucoma (primary open-angle glaucoma)
4. Early stage glaucoma (with cataract)
5. Early stage glaucoma (normal tension glaucoma)
6. Early stage glaucoma (primary open-angle glaucoma)
7. Moderate glaucoma (normal tension glaucoma)
8. Moderate glaucoma (primary open-angle glaucoma)
9. Late stage glaucoma (normal tension glaucoma)

GLAUCOMA – TREND

10. Early to moderate glaucoma (normal tension glaucoma)
11. Early to moderate glaucoma (primary open-angle glaucoma)
12. Early to moderate glaucoma (primary open-angle glaucoma)
13. Early to moderate glaucoma (normal tension glaucoma)
14. Early to moderate glaucoma (primary open-angle glaucoma)
15. End-stage glaucoma (exfoliative glaucoma)

NEUROLOGICAL DISEASES

16. Cerebral infarction (bilateral)
17. Leber hereditary optic neuropathy (bilateral)
18. Bilateral optic neuritis (multiple sclerosis)
19. Tuberculum sellae meningioma (bilateral)

RETINAL DISEASES

20. Age-related macular degeneration
21. Branch central retinal artery occlusion
22. Macular hole
23. Branch central retinal vein occlusion
**VERY EARLY STAGE GLAUCOMA (NORMAL TENSION GLAUCOMA)**

**PATIENT**
- 57-year-old female, no family history
- Patient reported decreased visual acuity in both eyes and discomfort in left eye

**IOP/VA corr**
- 15 mmHg / 1.2 - 5.25 (sph)

**FUNDUS**
- C/D = 0.9
- Rim thinning at 6 to 11 o'clock position
- Optic disc hemorrhage and narrow slit-like RNFL defect at 11 o'clock position
- Temporal alpha zone and beta zone peripapillary chorioretinal atrophy (PPA)

---

**Demo Jane, 1947/01/01 (57yrs)**

Right eye (OD) / 2004/11/18 / 12:01:27
Seven-in-One

- **Grayscale (CO)**
- **Defect (dB)**: -1.1
- **SF [dB]**: 1.6
- **CSLV [dB]**: 1.5
- **sLV [< 2.5 dB]**: 1.8
- **MD [< 2.0 dB]**: -1.5
- **MS [dB]**: 28.0

- **Values**
  - 25 23 33
  - 30 31 27

- **Rank**
  - 30 29 26
  - 28 27 29

- **p < 0.5**
  - 28 27 29
  - 30 29 26
  - 28 27 29

- **Defect Curve in normal range**

--

- No visual field loss
- Fundus findings show changes indicative of very early glaucoma including neuroretinal rim loss, optic disc hemorrhage, and RNFL loss
**EARLY STAGE GLAUCOMA (NORMAL TENSION GLAUCOMA)**

**PATIENT**
- 53-year-old female, no family history
- Optic nerve cupping observed during unrelated emergency eye surgery

**IOP/VA corr**
- 12 mmHg / 1.2 + 0.25 (sph)

**FUNDUS**
- C/D = 0.8
- Rim thinning and RNFL loss at 5 to 6 o'clock position

**Demo Jane, 1942/01/01 (53yrs)**

*Left eye (OS) / 1996/06/21 / 14:24:40*

*Seven-in-One*

- **Probabilities**
- **Corrected probabilities**

- **Comparisons**
- **Corrected comparisons**

- **Defect curve**

- **Cluster of abnormal locations with p < 0.5 %**

- **Question / Repetition:** 481 / 1
- **Duration:** 16.49

- **Grayscale (CO):**
- **Values:**

- **Parameters:**
  - G Standard: White / White / Normal
  - Parameters:
    - 4 / 1000 asb 100 ms
    - Catch trials:
      - 0.34 (80%) + 1.29 (4%) -
    - Refraction S/C/A:
      - 2.0
    - IOP (mmHg): 10

- **Comment**: NTG
- **Classification:**

- **OCTOPUS**: EyeSuite® Static Perimetry, V2.3.0
- **OCTOPUS 101**
EARLY STAGE GLAUCOMA (PRIMARY OPEN-ANGLE GLAUCOMA)

PATIENT
- 56-year-old female, her brother has POAG
- Patient visited clinic to rule out glaucoma because of her family history

IOP/VA corr
- 24 mmHg /1.0 - 3.25 (sph)

FUNDUS
- Inferior RNFL defects

OCT
- RNFL and ganglion cell loss inferotemporally at 7 to 8 o'clock position

Demo Jane, 1958/01/01 (56yrs)
Right eye (OD) / 2015/01/09 / 01:31:08
Four-in-One

- Nasal step, superior arcuate and superior paracentral defect apparent in Cluster Analysis
- Spatial relationship between visual field loss (Polar Analysis suggests structural damage at 7 to 8 o'clock position) and inferotemporal structural loss (fundus photo, RNFL & GC thickness map)
**EARLY STAGE GLAUCOMA (WITH CATARACT)**

**PATIENT**
- 71-year-old male, no family history
- Patient reported defective vision in both eyes over the last 6 months and glare at night while crossing roads

**IOP/VA**
- 24 mmHg / 0.7 +1.75 (sph), -1.25 (cyl) x 80°

**FUNDUS**
- Fundus image hazy due to cataract

**OCT**
- RNFL loss and ganglion cell loss at 5 to 6 o’clock position

---

**Demo John, 1944/01/01 (71yrs)**
Left eye (OS) / 2015/04/29 / 14:57:18
Four-in-One

- Grayscale (CO)
- Corrected cluster analysis [dB]
- Polar analysis

- Diffuse defect (cataract)
- Local defect (glaucoma)
- Nasal step (local defect)
- Structural damage suggested at 5 to 6 o’clock position

- Both diffuse defect (due to cataract) and local defect (due to glaucoma) in Defect Curve
- Corrected Cluster Analysis (removing diffuse defect) shows superior nasal step
- Spatial relationship between visual field loss (Polar Analysis suggests structural damage at 5 to 6 o’clock position) and inferotemporal structural loss (fundus photo, RNFL & GC thickness map)
PATIENT
- 58-year-old female, father had glaucoma
- Optic nerve cupping detected during routine medical visit

IOP/VA corr
- 16 mmHg/1.2 - 1.0 (sph), - 0.75 (cyl) x 80°

FUNDUS
- C/D = 0.9
- Rim thinning and wide RNFL loss at 5 to 6 o’clock position

Demo Jane, 1944/01/01 (58yrs)

Left eye (OS) / 2003/03/14 / 16:43:49
Seven-in-One

- Pupil [mm]: 5.0

OCTOPUS
- Seven-in-One
- Left eye (OS)
- 2003/03/14 / 16:43:49
- Demo Jane, 1944/01/01 (58 yrs)

- Refraction S/C/A: +0.5/-0.75/80
- Catch trials: 3/23 (13%) +, 0/23 (0%) -
- Parameters: 4 / 1000 asb III 100 ms
- Programs: G Standard / White/White / Normal
- Questions / repetitions: 490 / 0
- Duration: 15:23
- MS [dB]: 25.0
- WS [dB]: 2.2
- LVL (dB): 5.5
- LS [dB]: 2.8

- Dense paracentral scotoma
- Spatial relationship between visual field loss and both rim thinning and RNFL loss in fundus photo
**EARLY STAGE GLAUCOMA (PRIMARY OPEN-ANGLE GLAUCOMA)**

**PATIENT**
- 55-year-old male, no family history
- Patient reported decreased visual acuity and blurred vision

**IOP/VA corr**
- 23 mmHg / 1.2 -4.25 (sph), - 1.0 (cyl) x 180°

**FUNDUS**
- C/D = 0.8
- Small disc
- Rim thinning at 5 to 6 o’clock position

---

**Demo John, 1951/01/01 (55yrs)**

Left eye (OS) / 2007/05/11 / 10:02:54
Seven-in-One

**Defect curve**
- **Probabilities**
  - p > 5
  - p < 5
  - p < 2
  - p < 1
  - p < 0.5
- **Corrected probabilities**
  - Very reliable test

**Visual field shows superior arcuate defect**
- **Spatial relationship between visual field loss and rim thinning in fundus photo indicative of glaucoma**
7 MODERATE GLAUCOMA (NORMAL TENSION GLAUCOMA)

PATIENT
- 57-year-old female, no family history
- Patient reported decreased visual acuity in both eyes and discomfort in left eye

IOP/VA corr
- 16 mmHg/ 1.0 - 5.5 (sph)

FUNDUS
- C/D = 0.95
- Rim thinning at 12 to 6 o'clock position
- Vein angulation and bayoneting at 12 and 6 o'clock position

Demo Jane, 1947/01/01 (57yrs)
Left eye (OS) / 2004/11/18 / 12:25:31
Seven-in-One

- Defect (dB): -1.1
- Large sLV shows severe local defect
- Dense partial double arcuate visual field defect
- Spatial relationship between visual field loss and both rim thinning and vein bending in fundus photo
MODERATE GLAUCOMA (PRIMARY OPEN-ANGLE GLAUCOMA)

PATIENT
- 52-year-old female, no family history
- Patient diagnosed with glaucoma during medical check-up

IOP/VA corr
- 20 mmHg/ 1.2 - 4.0 (sph), -0.25 (cyl) x 180°

FUNDUS
- C/D = 0.9
- Rim thinning at 6 to 8 o’clock position and notching at 11 o’clock position
- Large RNFL loss at 6 to 8 o’clock position and small RNFL loss at 11 o’clock position
- Angulation of lower vein and undermining due to optic disc cupping
- Temporal alpha zone and beta zone peripapillary chorioretinal atrophy (PPA)

Demo Jane, 1954/01/01 (52yrs)
Right eye (OD) / 2007/02/06 / 09:27:13
Seven-in-One

- Dense visual field loss in superior nasal quadrant with many locations showing absolute defects and little remaining sensitivity near fixation corresponding with RNFL loss at 6 to 8 o’clock position
- Mild sensitivity loss on lower nasal field relating to RNFL loss at 11 o’clock position
### Late Stage Glaucoma (Normal Tension Glaucoma)

#### Patient
- 52-year-old male, no family history
- Patient reported decreased visual acuity in both eyes

#### IOP/VA corr
- 15 mmHg/1.2 + 1.25 (sph), -0.5 (cyl) x 80°

#### Fundus
- C/D = 1.0
- Rim disappearance at 12 and 6 to 8 o’clock position
- Narrowing of retinal artery

---

**Demo John, 1954/01/01 (52yrs)**

Right eye (OD) / 2006/11/24 / 16:24:03

Seven-in-One

- Program: G Standard White/White / Normal
- Parameters: 4 / 1000 std. / 100 ms
- Catch Trials: 0/22 (2%) / 1/122 (0.8%)
- Refraction S/C/A: +2.75/-0.5/80
- VA: 1.0
- Catch trials: 0/22 (0%) +, 11/22 (50%) -
- RF: 25.0
- Parameters: 4 / 1000 asb III 100 ms
- Duration: 13:53
- Programs: G Standard   White/White / Normal
- Questions / repetitions: 438 / 0
- MS [dB]: 8.6
- MD (> 2.0 dB): 19.0
- AV (2.5 dB): 10.1
- S/L (dB): 10.0
- SF (dB): 2.4

- Dense double arcuate defect with many locations showing absolute defects
- No sensitivity loss at fixation
- Kinetic perimetry shows intact temporal and central visual field
- Late stage glaucoma with preserved fixation and peripheral temporal visual field
EARLY TO MODERATE GLAUCOMA (NORMAL TENSION GLAUCOMA)

PATIENT
- 40-year-old male, no family history
- Glaucoma was suspected after routine medical check-up

IOP/VA corr
- 16 mmHg/1.2 -2.5 (sph), -1.5 (cyl) x 110°

FUNDUS
- 1998 Rim thinning RNFL loss at 7 o’clock position
- 2007 Rim thinning & RNFL loss at 6 to 8’clock position indicating progression

• Grayscale series shows expansion of superior nasal defect to a superior arcuate defect from 1998 to 2007
• Significant (p < 1%) MD worsening at 0.8 dB/year due to fast progression in affected superior clusters (Cluster MD change 1.1 to 2.4 dB/year)
• Large (up to 30 dB) progression at 6 to 8 o’clock position in Polar Trend Analysis
• Rim thinning and RNFL loss spreading from 7 o’clock position towards 6 and 8 o’clock position
• Clear relationship between fundus and visual field progression confirming glaucomatous progression
**EARLY TO MODERATE GLAUCOMA (PRIMARY OPEN-ANGLE GLAUCOMA)**

**PATIENT**
- 68-year-old female, no family history
- High IOP identified during visit initiated due to eye pain

**IOP/VA corr**
- 22 mmHg/1.5 + 0.75 (sph), - 0.25 (cyl) x 10°

**FUNDUS**
- 2001 Mild, slit-like RNFL loss at 7 o’clock position. No rim thinning or notching.
- 2008 RNFL loss & additional rim thinning with undermining at 6 to 8 o’clock position indicating progression; laser scar at 1 to 3 o’clock position due to treated BRVO, which developed in 2002 during follow up

**MD Mean defect**
- Slope: 0.4 dB/year (p<0.5%)

**sLV Loss variance**
- Slope: 0.8 dB/year (p<0.5%)

**DD Diffuse defect**
- Slope: -0.2 dB/year

**LD Local defect**
- Slope: 0.8 dB/year (p<0.5%)

- Grayscale series shows expansion of superior nasal defect to a superior arcuate defect from 2001 to 2008 and mild inferotemporal sensitivity loss due to BRVO
- Significant (p < 1%) but slow MD worsening at 0.4 dB/year due to fast progression in affected superior clusters (Cluster MD change 1.1 to 2.1 dB/year)
- Large (up to 30 dB) progression at 6 to 8 o’clock position in Polar Trend Analysis
- Rim thinning and RNFL loss spreading from 7 o’clock position towards 6 and 8 o’clock position
- Clear relationship between fundus and visual field progression confirming glaucomatous progression
**EARLY TO MODERATE GLAUCOMA (PRIMARY OPEN-ANGLE GLAUCOMA)**

**PATIENT**
- 53-year-old male, no family history
- High IOP identified during visit related to eye pain

**IOP/VA**
- **25 mmHg/1.2 - 0.75 (sph), -1.0 (cyl) x 90°**

**FUNDUS**
- **2002** Rim thinning at 1 to 2 o’clock position. Rim notching at 5 o’clock position. RNFL loss at same positions. Optic disc hemorrhage at 6 o’clock position.
- **2008** Rim thinning from 1 to 6 o’clock position

- Grayscale series shows expansion of inferior arcuate defect to superior nasal side from 2002 to 2008
- Significant (p < 1%) but slow MD worsening at 0.5 dB/year due to fast progression in affected superior clusters (Cluster MD change up to 2.5 dB/year)
- Large (~28 dB) progression at 5 o’clock position in Polar Trend Analysis
- Rim thinning and RNFL loss spreading from 1 to 2 o’clock position towards 6 o’clock position
- Clear relationship between fundus and visual field progression confirming glaucomatous progression
**EARLY TO MODERATE GLAUCOMA (NORMAL TENSION GLAUCOMA)**

**PATIENT**
- 51-year-old male, no family history
- Patient reported a blind spot in visual field of left eye during reading and a visual field defect temporarily near fixation upon fixation of distant objects

**IOP/VA corr**
- 15 mmHg/1.0 - 6.0 (sph), - 1.25 (cyl) x 160°

**FUNDUS**
- 2001 Small disc. RNFL loss (including papillomacular nerve fiber) from 2 to 5 o'clock position. Temporal alpha zone and beta zone peripapillary chorioretinal atrophy (PPA).
- 2004 Challenging to identify changes because of small disc and severe myopia

- Grayscale series shows expansion of superior paracentral defect towards fixation from 2001 to 2004
- Significant (p < 1%) and fast MD worsening at 1.2 dB/year due to very fast progression in affected central clusters (Cluster MD change 3.3 and 5.4 dB/year)
- Challenging to assess structural changes, but large (up to 30 dB) progression at 5 o'clock position in Polar Trend Analysis corresponding with RNFL loss in fundus image suggests glaucomatous progression
- Relationship between fundus and visual field progression confirming glaucomatous progression
PATIENT
- 74-year-old female
- Patient showed advanced disc damage at presentation
  Suboptimal IOP control under topical medication, but patient refused surgery

IOP/VA uncorr
- 16–22 mmHg (28 mmHg pre-treatment)/1.0

OCT
- 2008 Pathologically low peripapillary RNFLT in inferotemporal sectors
- 2013 Statistically significant further RNFLT decrease both infero- and superotemporally

FUNDUS
- 2008 Advanced disc damage (C/D=0.95)

- Grayscale series shows progression of superior arcuate and both superior and inferior paracentral defects from 2008 to 2013
- Local progression apparent from significant (p < 1%) sLV increase and LD worsening due to very fast progression in superior arcuate and superior and inferior paracentral clusters (Cluster MD change up to 2.6 dB/year)
- Up to 30 dB progression at infero- and superotemporal test locations in Polar Trend Analysis spatially related to further RNFLT loss between 2008 and 2013
- Relationship between OCT and visual field progression confirming glaucomatous progression
**END-STAGE GLAUCOMA (EXFOLITATIVE GLAUCOMA)**

**PATIENT**
- 79-year-old female
- Patient presented with end-stage glaucoma, filtration surgery was performed with no further medication during follow-up
- Patient reported only minimal central visual field worsening during follow-up

**IOP/VA corr**
- 08–14 mmHg (43mmHg pre-treatment)/1.0 + 1.0 (sph)

**OCT**
- 2008 Severe peripapillary RNFLT loss
- 2013 No change in the average peripapillary RNFLT

**FUNDUS**
- 2008 C/D=0.99

- Grayscale series shows very dense visual field loss with little remaining sensitivity in macula
- MD appears stable, but cannot be interpreted for progression because of floor effect (exceeding perimeter's measurement range)
- Significant (p < 1%) superior and inferior paracentral progression (Cluster MD change 1.4 and 2.5 dB/year)
- 12 to 25 dB progression at 8 to 10 o’clock position (papillomacular bundle) in Polar Trend Analysis not apparent in OCT results due to the floor effect of OCT in end-stage glaucoma
- Polar and Cluster Trend Analysis indicate late-stage glaucomatous progression
CEREBRAL INFARCTION (BILATERAL)

PATIENT

- 65-year-old male, no family history
- Patient experienced occipital headache and optic agnosia of name, letters, etc.
- Diagnosed with cerebral infarction in left temporal lobe
- Previous central serous chorioretinopathy in left eye

Demo John, 1933/01/01 (65yrs)

Left eye (OS) / 1999/07/12 / 11:36:23

Seven-in-One

Classification:

Comment:

Pupil [mm]: 6.4
IOP [mmHg]: 14
Refraction S/C/A: +0.75/-1.5/90
VA: 0.4

Catch trials: 0/20 (0%) +, 4/21 (19%) -
RF: 9.7

Parameters: 4 / 1000 asb III 100 ms

Duration: 15:54

Programs: G Standard White/White / Normal

Questions / repetitions: 409 / 2

MS [dB]: 18.3
MD [< 2.0 dB]: 8.4
sLV [< 2.5 dB]: 12.4
CxlV [dB]: 12.0
SF [dB]: 1.5

Grayscale (CO)

Comparisons
Corrected comparisons
Defect curve

Sensitivity loss at fixation

Vertical drop characteristic for quadrantoplia

Comparisons
Corrected comparisons
Defect curve

Grayscale (CO)

Values

Probabilities
Corrected probabilities

Programs: G Standard White/White / Normal
Parameters: 4 / 1000 asb III 100 ms
Catch trials: 0/20 [5%] +, 4/21 [19%] -
Refractive S/C/A: +0.75/-1.5/90
Pupil [mm]: 6.4

Questions / repetitions: 409 / 2
Duration: 15:54
RF: 0.7
VA: 0.4
IOP [mmHg]: 14

Comment:
Classification:

OCTOPUS®

EyeSuite® Static perimetry. V2.3.0
OCTOPUS 101
**Demo John, 1933/01/01 (65yrs)**

Right eye (OD) / 1999/07/12 / 11:00:42

**Seven-in-One**

- **Pupil [mm]:** 6.0
- **IOP [mmHg]:** 14
- **Refraction S/C/A:** +0.5/-2.0/90
- **VA:** 1.0
- **Catch trials:** 0/21 (0%) +, 6/22 (27%) -
- **RF:** 13.9
- **Parameters:** 4 / 1000 asb III 100 ms
- **Duration:** 16:01
- **Programs:** G Standard   White/White / Normal
- **Questions / repetitions:** 424 / 0

**Grayscale (CO)**

- 95%..100%
- 83%...94%
- 71%...82%
- 59%...70%
- 47%...58%
- 35%...46%
- 23%...34%
- 11%...22%
- 0%...10%

Comparisons

Corrected comparisons

Probabilities

Corrected probabilities

**Defect curve**

**Probabilities**

Corrected probabilities

**Novel Findings**

- Superior homonymous quadrantanopia sparing fixation on right side of vertical meridian due to cerebral infarction in left temporal lobe
- Significant sensitivity loss at fixation in left eye due to previous central serous chorioretinopathy with decrease in visual acuity (0.4)
LEBER HEREDITARY OPTIC NEUROPATHY (BILATERAL)

PATIENT
- 31-year-old male, no family history
- Patient reported decreased visual acuity in right eye
- Patient diagnosed with central serous chorioretinopathy and retinal hemorrhage
- After referral, patient diagnosed with optic neuropathy based on MRI findings
- Patient diagnosed with Leber hereditary optic neuropathy based on maternal mitochondrial DNA test

Demo John, 1973/01/01 (31yrs)
Left eye (OS) / 2004/10/21 / 12:51:41
Seven-in-One

Parameters:
- 4 / 1000 asb III 100 ms
- Catch trials: 0:29 (9%) +, 4:30 (13%) -
- Refraction S/C/A: //
- VA: 6/6

Questions / repetitions: MS / 0
- Duration: 19:20
- IOP [mmHg]: 12.7
- MD [< 2.0 dB]: 14.0
- MS [dB]: 14.2
- MD [+ 2.5 dB]: 9.2
- SF [dB]: 14.0

Corrected probabilities:
- p > 5
- p > 5
- p < 1
- p < 0.5
- p < 0.5

Defect curve

Chapter 13 | Clinical cases

• 31-year-old male, no family history
• Patient reported decreased visual acuity in right eye
• Patient diagnosed with central serous chorioretinopathy and retinal hemorrhage
• After referral, patient diagnosed with optic neuropathy based on MRI findings
• Patient diagnosed with Leber hereditary optic neuropathy based on maternal mitochondrial DNA test
Corrected probabilities

Neuro | Single field

- OD 10 mmHg/10 cm, finger counting; OS 10 mmHg/30 cm, hand motion

FUNDUS
- Pale optic discs in both eyes

CENTRAL CFF
- OD 32 Hz; OS 42 Hz

Demo John, 1973/01/01 (31 yrs)
Right eye (OD) / 2004/10/21 / 13:17:49
Seven-In-One

- Dense sensitivity loss in center of both eyes
- Additional inferior nasal visual field loss from 20 to 50°
- Asymmetrical visual field defect, central and peripheral scotomas more severe in left eye
BILATERAL OPTIC NEURITIS (MULTIPLE SCLEROSIS)

**PATIENT**
- 25-year-old female, no family history
- Patient reported difficulty in seeing for two weeks

---

**Demo Jane, 1975/01/01 (25yrs)**

Left eye (OS) / 2001/11/30 / 14:19:18

**Seven-in-One**

**Grayscale (CD)**

**Comparisons**

**Corrected comparisons**

**Defect curve**

**Probabilities**

**Corrected probabilities**

**Programs:**
- 32 Standard White/White / Normal

**Parameters:**
- Duration: 20/11
- Diffusion time: 4.0 / 5.0
- Pupil [mm]: 6.3

**Questions / repetitions:** 037 / 2

**Classification:**

**OCTOPUS®**

EyeSuite® Static perimetry. V2.3.0
OCTOPUS 101

---

**Corrected probabilities**

<table>
<thead>
<tr>
<th>Probability</th>
<th>0%...10%</th>
<th>11%...22%</th>
<th>23%...34%</th>
<th>35%...46%</th>
<th>47%...58%</th>
<th>59%...70%</th>
<th>95%..100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>V4e</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>I4e</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>I3e</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>I3b</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>I2e</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>I2b</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>I1e</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>
Sensitivity loss on lower temporal side of vertical meridian in both eyes (i.e., mild bitemporal hemianopia)
- MRI shows demyelinated plaque, thus bitemporal hemianopia is attributed to multiple sclerosis at optic chiasm
PATIENT

- 64-year-old male, no family history
- Patient reported difficulty in reading books and newspaper
IOP/VA corr

- OD 12 mmHg/0.15 – 2.0 (sph)
- OS 13 mmHg/1.2 – 1.5 (sph), – 1.0 (cyl) x 100°

FUNDUS
- Pale optic disc with slight cupping
- Slight bending of blood vessels

CFF
- OD 25 Hz; OS 40 Hz

MRI
- Meningioma in tuberculum sellae

Demo John, 1941/01/01 (64yrs)
Right eye (OD) / 2005/10/12 / 13:14:55
Seven-in-One

- Complete sensitivity loss (heteronymous hemianopia) temporally of vertical meridian
- Additional absolute defect in superior nasal quadrant of right eye
• 64-year-old male, no family history
• Patient reported decreased visual acuity in left eye

IOP/VA corr
13 mmHg / 0.2 - 1.75 (sph), - 0.75 (cyl) x 80°

FUNDUS
Exudative age-related macular degeneration in macula area

M-pattern (10°) used for a high resolution of the macula
Dense visual field loss within central 5° of macula, no visual field loss from 6° to 10°
BRANCH CENTRAL RETINAL ARTERY OCCLUSION

PATIENT
- 51-year-old female, no family history
- Patient reported sudden loss of vision in superior visual field of left eye

IOP/VA corr
- 14 mmHg/ 1.0 – 4.0 (sph), +0.75 (cyl) x 80°

FUNDUS
- Ischemia-induced retinal edema in area of blood vessels caused by occlusion of the downward branch of the central retinal artery

Demo Jane, 1956/01/01 (51yrs)
Left eye (OS) / 2007/05/16 / 11:37:22
Seven-in-One

M-pattern (10°) used for a high resolution of the macula
- Dense to absolute visual field loss in superior visual field corresponding with ischemic region of downward retinal artery
- Fixation is spared, corrected visual acuity of 1.0 is maintained
- Kinetic perimetry shows absolute defect outside 10° nasally
MACULAR HOLE

PATIENT
- 67-year-old female, no family history
- Patient reported distorted vision in right eye

IOP/VA corr
- 12 mmHg/0.2 ~ 1.5 (sph), ~ 2.5 (cyl) x 80°

FUNDUS
- Macular hole with fluid cuff in surrounding region

Demo Jane, 1939/01/01 (67yrs)
Right eye (OD) / 2006/07/31 / 13:23:40
Seven-in-One

- M-pattern (10°) used for a high resolution of the macula
- Significant visual field loss in the central fovea leading to decreased visual acuity (0.2) due to macular hole
**BRANCH CENTRAL RETINAL VEIN OCCLUSION**

**PATIENT**
- 76-year-old male, no family history
- Patient reported decreased visual acuity in left eye, blurred and double vision

**IOP/VA corr**
- 10 mmHg/ 0.2 +3.75 (sph), ~2.0 (cyl) x 170°

**FUNDUS**
- Retinal hemorrhage and soft exudate along RNFL in lower retinal arcade

---

**Demo John, 1928/01/01 (76yrs)**

Left eye (OS) / 2004/03/24 / 15:44:51

**Sensitivity loss in superior visual field corresponding with inferior retinal hemorrhage**
- Diffuse visual field defect associated with poor visual acuity (0.2)
- Significant local visual field loss in superior paracentral area due to macular edema