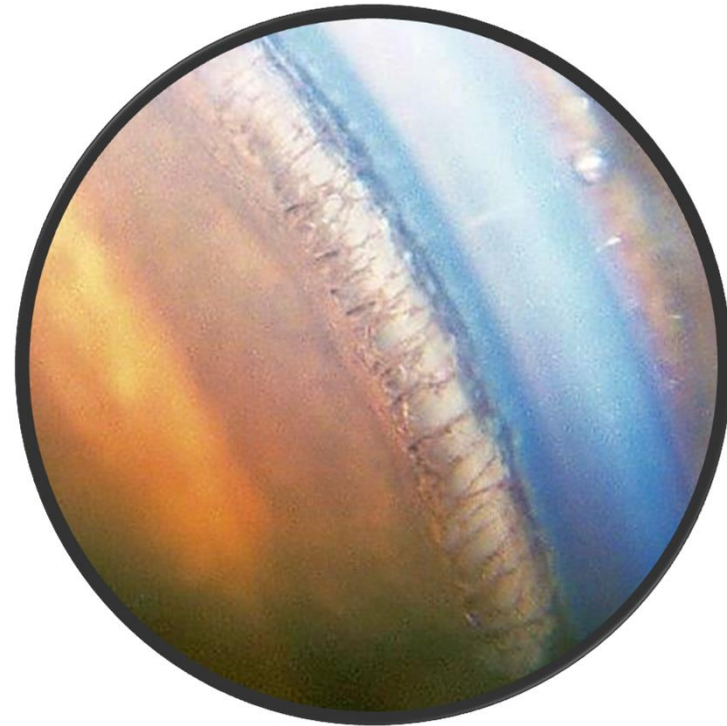# HED session
Gonioscopy

Marianne Richter

ECVO Congress, Florence 2018

HED Manual: Definition & Guidelines

Two predominant types of involvement of the angle are distinguished. The pectinate ligament (PL) and the iridocorneal angle (ICA) width are evaluated by gonioscopy in its extent of 360 degrees.
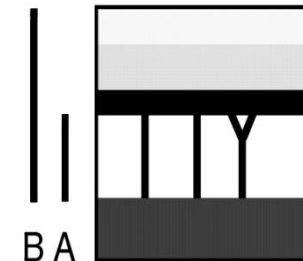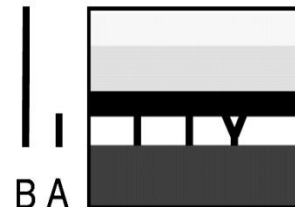
˝ Pectinate ligament abnormality (PLA): presumed hereditary eye disease; characterized by an abnormal PL that can be divided into 2 predominant types:

- Fibrae latae (FL) : fibres with a confluent (broad) base and shortened thin insertions at the cornea or thick fibres (<5 fibres)
- Laminae (LA): plates or sheets of continuous tissue (>5 fibres), with or without flow holes

˝ Iridocorneal angle (ICA) width: the width of the ICA is evaluated by comparison of the length of the pectinate ligament (A) and the distance from the origin of the pectinate ligament to the anterior surface of the cornea at the transection area (B);

Grading of ICAA

˝ 0 – 50% FL = **unaffected**

˝ >50-100% FL **and/or** < 25% LA = **affected (mild)**

˝ 25-50% LA = **affected (moderate)**

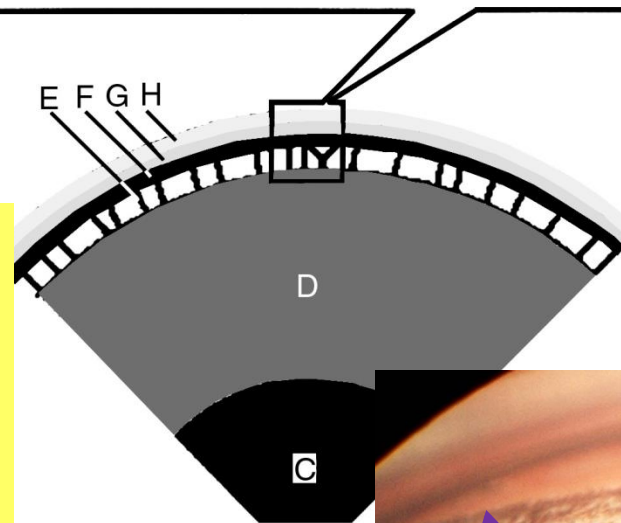˝ > 50% LA = **affected (severe)**

ICA width

Ratio A/B:			
Terminology:	**PL not visible**	**A < 1/3 of B**	**A ≥ 1/3 of B**
	closed	**narrow**	**open**
	affected (severe)	**affected (moderate)**	**normal**

3

Terminology:
	closed	narrow	open
Ratio A/B:	PL not visible	A < 1/3 of B	A ≥ 1/3 of B

Comparison between 2 distances:

A = length of PL

B = distance from the origin of the PL to the anterior surface of the cornea at the transection area
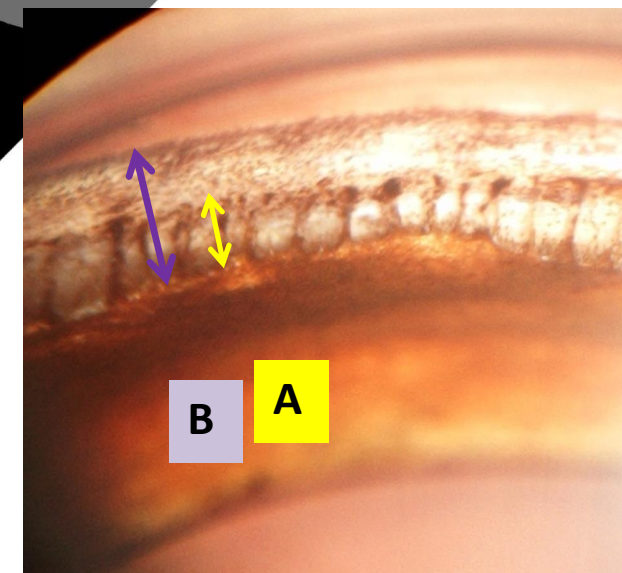
C = Pupil

D = Iris

E = PL

F = inner/deep pigment band

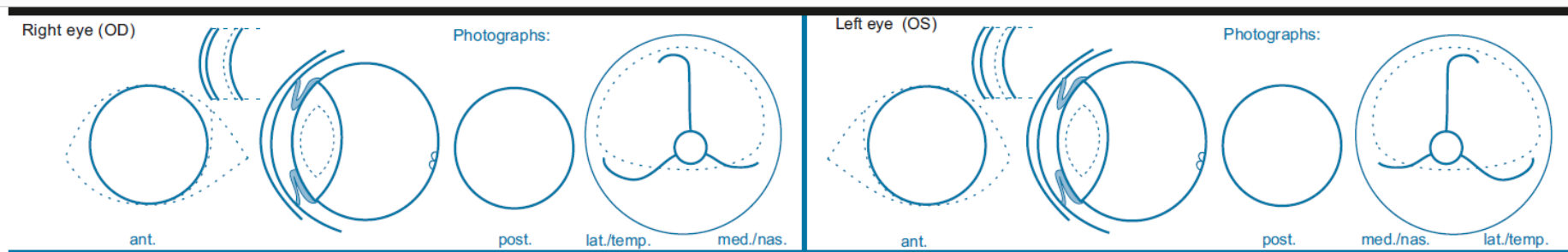G = outer/superficial pigment band

H = corneal transection

Gonioscopy: the entire ICA looks like the section on the slide

NEW CERTIFICATE

Right eye (OD)   Photographs:
ant.   post.   lat./temp.   med./nas.

Left eye (OS)   Photographs:
ant.   post.   med./nas.   lat./temp.

Descriptive comments:
....

8. ICAA: PLA ☐ mild ☒ moderate ☐ severe

ICA width ☐ narrow (moderate) ☐ closed (severe)

Eye disease no. .... ☐ mild ☐ severe

Results for the known or presumed hereditary eye diseases (KP-HED):	UNAFFECTED *	UNDETERMINED **	AFFECTED *		
1. Persistent Pupillary Membrane (PPM)	☐	☐	☐ iris / ☐ lens	☐ cornea / ☐ lamina	
2. Persistent Hyperpl.Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	☐	☐	☐ grade 1 / ☐ grade 2-6		
3. Cataract (congenital)	☐	☐	☐		
4. Retinal Dysplasia (RD)	☐	☐	☐ (multi)focal / ☐ geographical / ☐ total		
5. Hypoplastic-/Micro-papilla	☐	☐	☐		
6. Collie Eye Anomaly (CEA)	☐	☐	☐ choroid. hypoplasia / ☐ coloboma / ☐ other:		
7. Other:	☐	☐	☐		
8. IridoCorneal Angle Abnormality. (ICAA)	☐	☒	☒ mild / ☐ moderate / ☐ severe		

Interpretation

Results valid for 12 months	UNAFFECTED *	SUSPICIOUS ***	AFFECTED *	
11. Entropion/Trichiasis	☐	☐	☐	
12. Ectropion/Macroblepharon	☐	☐	☐	
13. Distichiasis /Ectopic cilia	☐	☐	☐	
14. Corneal dystrophy	☐	☐	☐	cortical / post. pol. / ant sut. l. / punctata / nucleus / other
15. Cataract (non-congenital)	☐	☐	☐	
16. Lens luxation (primary)	☐	☐	☐	
17. Retinal degeneration (PRA)	☐	☐	☐	
18. Other:	☐	☐	☐	

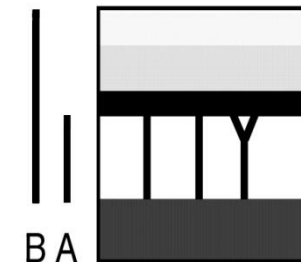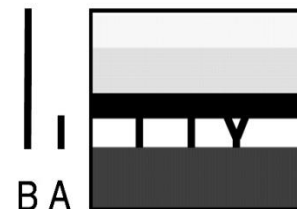# Grading of ICAA

PLA

˝ 0 – 50% FL = **unaffected**

˝ >50-100% FL **and/or** < 25% LA = **affected (mild)**

˝ 25-50% LA = **affected (moderate)** ✓

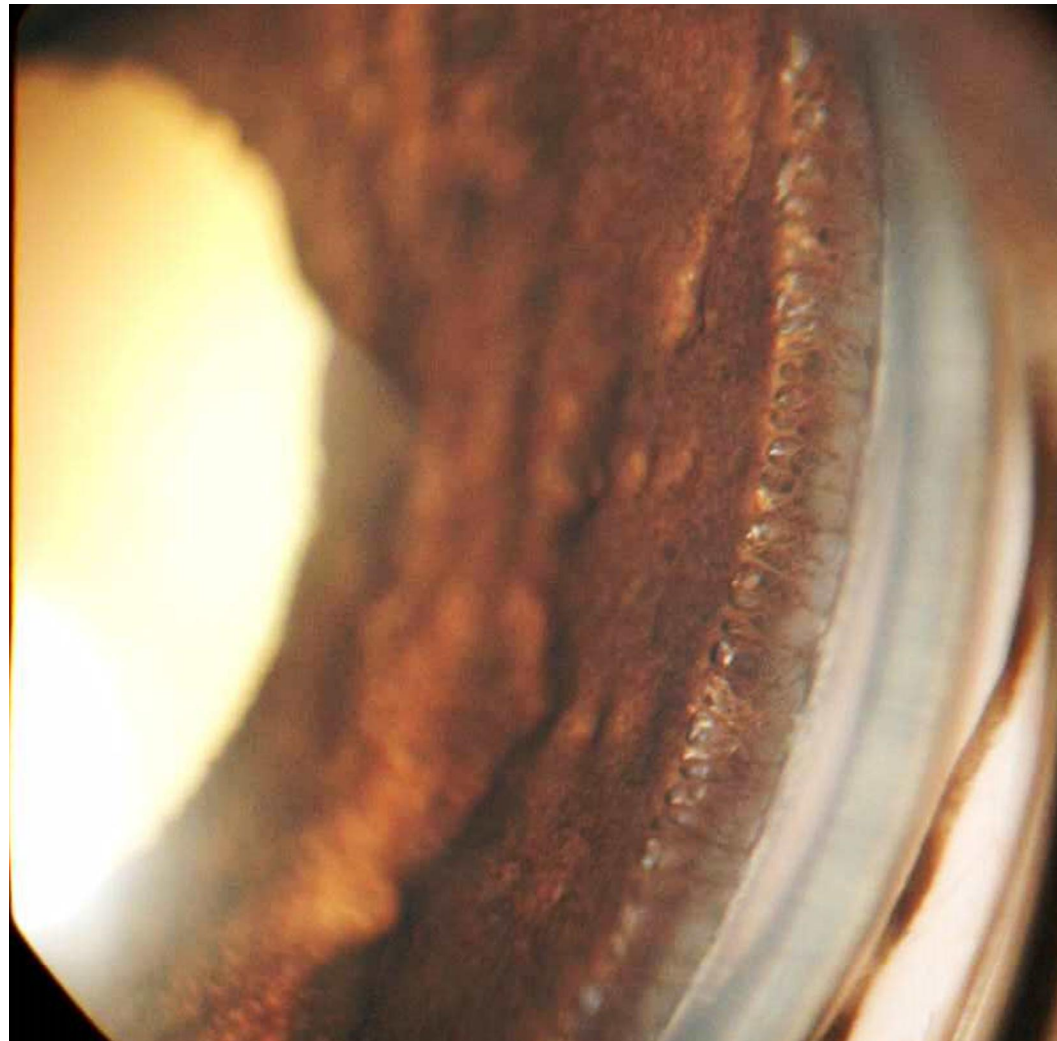˝ > 50% LA = **affected (severe)**
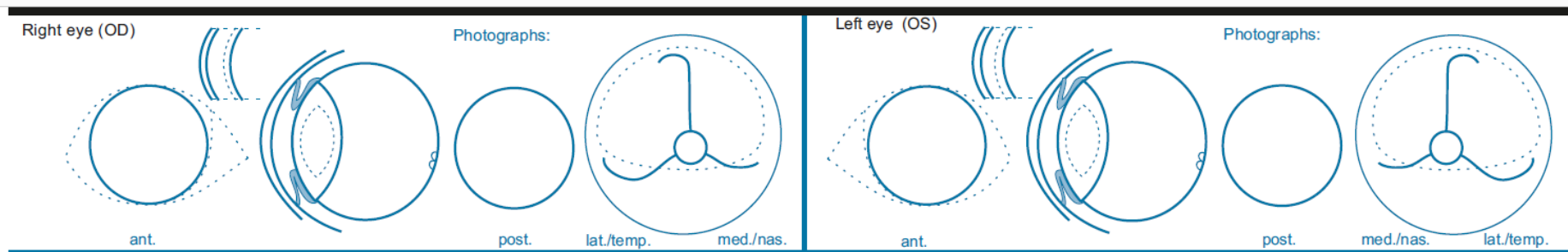
ICA width

Ratio A/B:	**PL not visible**	**A < 1/3 of B**	**A ≥ 1/3 of B**
Terminology:	**closed**	**narrow**	**open** ✓
	affected (severe)	**affected (moderate)**	**normal**

Gonioscopy: the entire ICA looks like the section on the slide

	Right eye (OD)		Photographs:			
	ant.			post.	lat./temp.	med./nas.

	Left eye (OS)		Photographs:			
	ant.			post.	med./nas.	lat./temp.

Descriptive comments:
....
....
....

8. ICAA: PLA ☐ mild ☐ moderate ☐ severe

ICA width ☐ narrow (moderate) ☐ closed (severe)

Eye disease no. .... ☐ mild ☐ severe

Results for the known or presumed hereditary eye diseases (KP-HED):

	* UNAFFECTED	** UNDETERMINED	* AFFECTED	
1. Persistent Pupillary Membrane (PPM)	☐	☐	☐	☐ iris ☐ cornea / ☐ lens ☐ lamina
2. Persistent Hyperpl.Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	☐	☐	☐	☐ grade 1 / ☐ grade 2-6
3. Cataract (congenital)	☐	☐	☐	
4. Retinal Dysplasia (RD)	☐	☐	☐	☐ (multi)focal ☐ geographical ☐ total
5. Hypoplastic-/Micro-papilla	☐	☐	☐	
6. Collie Eye Anomaly (CEA)	☐	☐	☐	☐ choroid. hypoplasia ☐ coloboma ☐ other:
7. Other:	☐	☐	☐	
8. IridoCorneal Angle Abnormality. (ICAA)	X			☐ mild ☐ moderate ☐ severe

Interpretation

Results valid for 12 months

	* UNAFFECTED	*** SUSPICIOUS	* AFFECTED	
11. Entropion/Trichiasis	☐	☐	☐	
12. Ectropion/Macroblepharon	☐	☐	☐	
13. Distichiasis /Ectopic cilia	☐	☐	☐	
14. Corneal dystrophy	☐	☐	☐	☐ cortical ☐ post. pol.
15. Cataract (non-congenital)	☐	☐	☐	☐ ant sut. l. ☐ punctata ☐ nucleus ☐ other
16. Lens luxation (primary)	☐	☐	☐	
17. Retinal degeneration (PRA)	☐	☐	☐	
18. Other:	☐	☐	☐	

Grading of ICAA
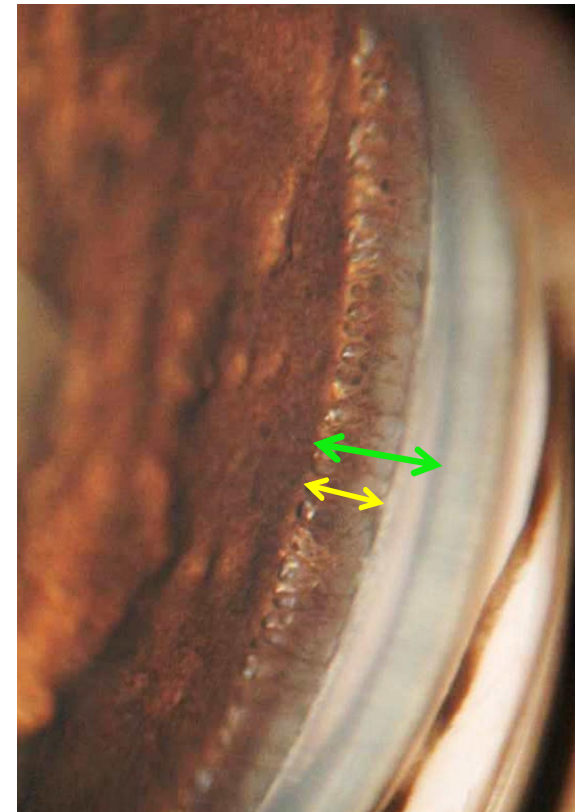

PLA

″ 0 – 50% FL = unaffected ✓
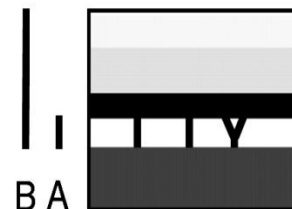
″ >50-100% FL **and/or** < 25% LA = **affected (mild)**

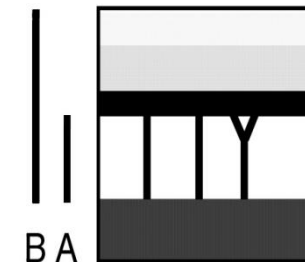″ 25-50% LA = **affected (moderate)**

″ > 50% LA = **affected (severe)**

ICA width

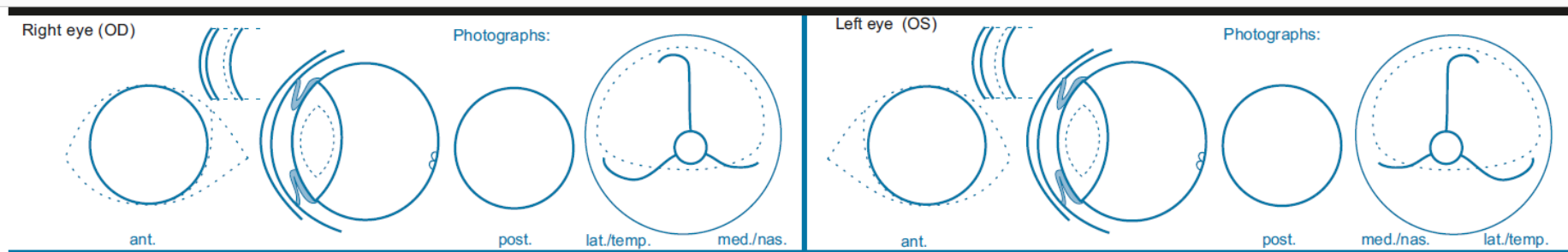| Ratio A/B: Terminology: | **PL not visible closed** affected (severe) | **A < 1/3 of B narrow** affected (moderate) | **A ≥ 1/3 of B open** ✓ normal |

Gonioscopy: the slide shows a **single abnormal area**, the rest of the ICA looks normal.

NEW CERTIFICATE

Right eye (OD) — Photographs: — ant. post. lat./temp. med./nas.

Left eye (OS) — Photographs: — ant. post. med./nas. lat./temp.

Descriptive comments:
....
....
....

8. ICAA: PLA ☒ mild   ☐ moderate   ☐ severe

ICA width   ☐ narrow (moderate)   ☐ closed (severe)

Eye disease no. .... ☐ mild   ☐ severe

Results for the known or presumed hereditary eye diseases (KP-HED):	* UNAFFECTED	** UNDETERMINED	* AFFECTED	
1. Persistent Pupillary Membrane (PPM)	☐	☐	☐ iris ☐ lens ☐ cornea ☐ lamina	
2. Persistent Hyperpl. Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	☐	☐	☐ grade 1 ☐ grade 2-6	
3. Cataract (congenital)	☐	☐	☐ ☐ (multi)focal ☐ geographical ☐ total	
4. Retinal Dysplasia (RD)	☐	☐	☐	
5. Hypoplastic-/Micro-papilla	☐	☐	☐	
6. Collie Eye Anomaly (CEA)	☐	☐	☐ choroid. hypoplasia ☐ coloboma ☐ other:	
7. Other:	☐	☐	☐	
8. IridoCorneal Angle Abnormality. (ICAA)	☐	☐	☒ ☐ mild ☒ moderate ☐ severe	

Interpretation

Results valid for 12 months	* UNAFFECTED	*** SUSPICIOUS	* AFFECTED	
11. Entropion/Trichiasis	☐	☐	☐	
12. Ectropion/Macroblepharon	☐	☐	☐	
13. Distichiasis /Ectopic cilia	☐	☐	☐	
14. Corneal dystrophy	☐	☐	☐	
15. Cataract (non-congenital)	☐	☐	☐ cortical, post. pol., ant sut. l., punctata, nucleus, other	
16. Lens luxation (primary)	☐	☐	☐	
17. Retinal degeneration (PRA)	☐	☐	☐	
18. Other:	☐	☐	☐	

Grading of ICAA
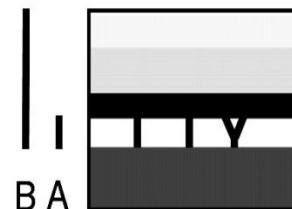

PLA

- 0 – 50% FL = **unaffected**
- >50-100% FL **and/or** < 25% LA = **affected (mild)** ✓
- 25-50% LA = **affected (moderate)**
- > 50% LA = **affected (severe)**

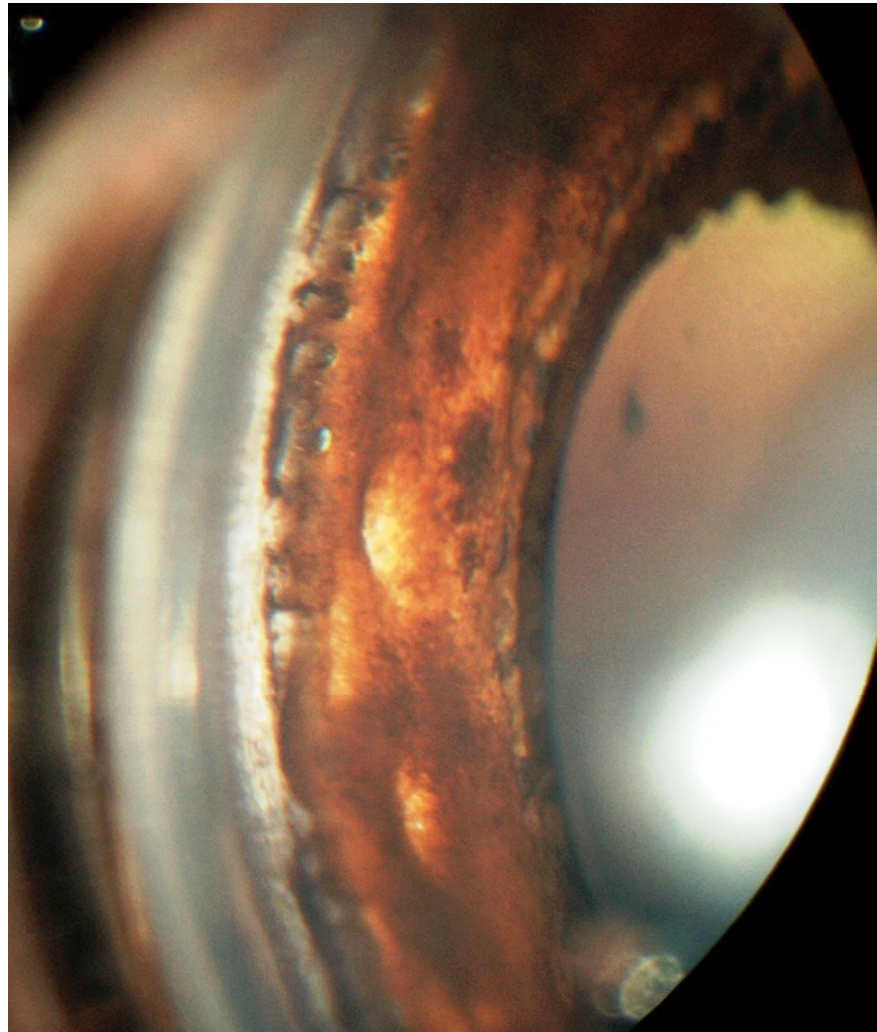ICA width

Ratio A/B:			
Terminology:	**PL not visible**	**A < 1/3 of B**	**A ≥ 1/3 of B**
	closed	**narrow**	**open** ✓
	affected (severe)	**affected (moderate)**	**normal**

Gonioscopy: the entire ICA looks like the section on the slide

NEW CERTIFICATE

Right eye (OD) — Photographs: | ant. | post. | lat./temp. | med./nas.

Left eye (OS) — Photographs: | ant. | post. | med./nas. | lat./temp.

Descriptive comments:
....
....
....

Eye disease no. .... ☐ mild ☐ severe

8. ICAA: PLA ☐ mild ☒ moderate ☐ severe

ICA width ☐ narrow (moderate) ☐ closed (severe)

Results for the known or presumed hereditary eye diseases (KP-HED):

	*UNAFFECTED	**UNDETERMINED	*AFFECTED	
1. Persistent Pupillary Membrane (PPM)	☐	☐	☐ iris / ☐ lens / ☐ cornea / ☐ lamina
2. Persistent Hyperpl. Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	☐	☐	☐ grade 1 / ☐ grade 2-6
3. Cataract (congenital)	☐	☐	☐
4. Retinal Dysplasia (RD)	☐	☐	☐ (multi)focal / ☐ geographical / ☐ total
5. Hypoplastic-/Micro-papilla	☐	☐	☐
6. Collie Eye Anomaly (CEA)	☐	☐	☐ choroid. hypoplasia / ☐ coloboma / ☐ other:
7. Other:	☐	☐	☐
8. IridoCorneal Angle Abnormality. (ICAA)	☐		☒ mild / ☒ moderate / ☐ severe

Interpretation

Results valid for 12 months

	*UNAFFECTED	***SUSPICIOUS	*AFFECTED	
11. Entropion/Trichiasis	☐	☐	☐
12. Ectropion/Macroblepharon	☐	☐	☐
13. Distichiasis /Ectopic cilia	☐	☐	☐
14. Corneal dystrophy	☐	☐	☐ cortical / post. pol. / ant sut. l. / punctata / nucleus / other
15. Cataract (non-congenital)	☐	☐	☐
16. Lens luxation (primary)	☐	☐	☐
17. Retinal degeneration (PRA)	☐	☐	☐
18. Other:	☐	☐	☐

Grading of ICAA

PLA

- ″ 0 – 50% FL = **unaffected**
- ″ >50-100% FL **and/or** < 25% LA = **affected (mild)**
- ″ 25-50% LA = ✓**affected (moderate)**
- ″ > 50% LA = **affected (severe)**

ICA width

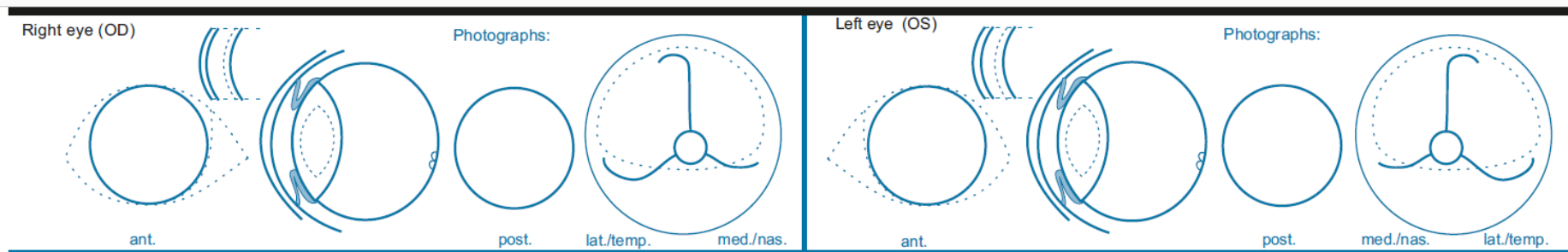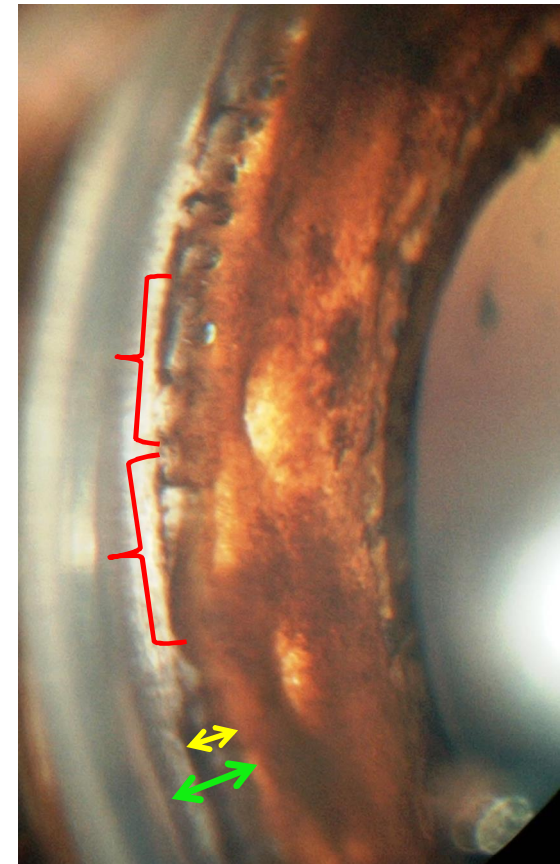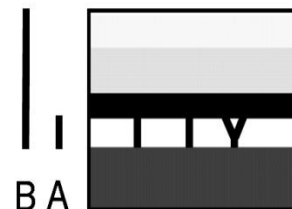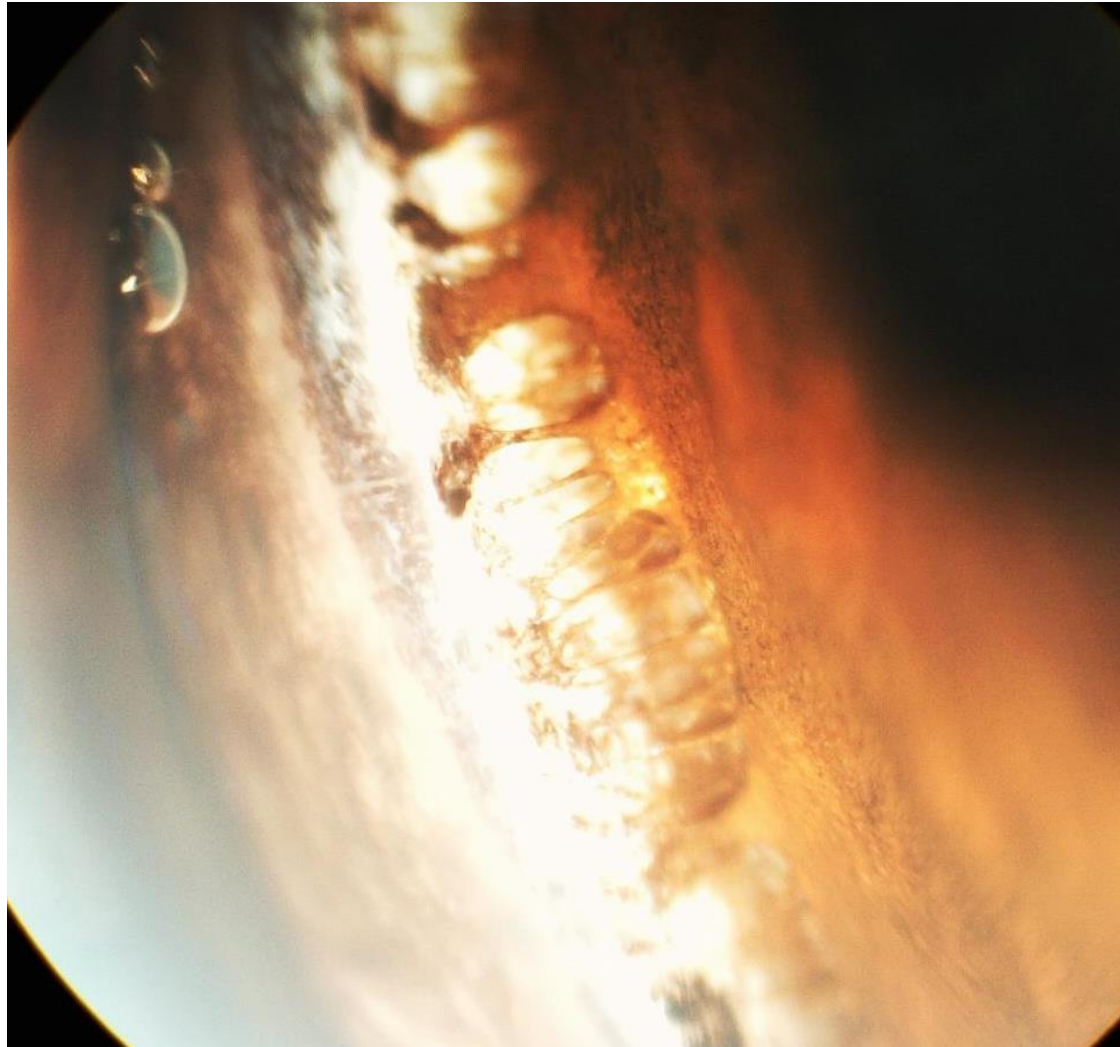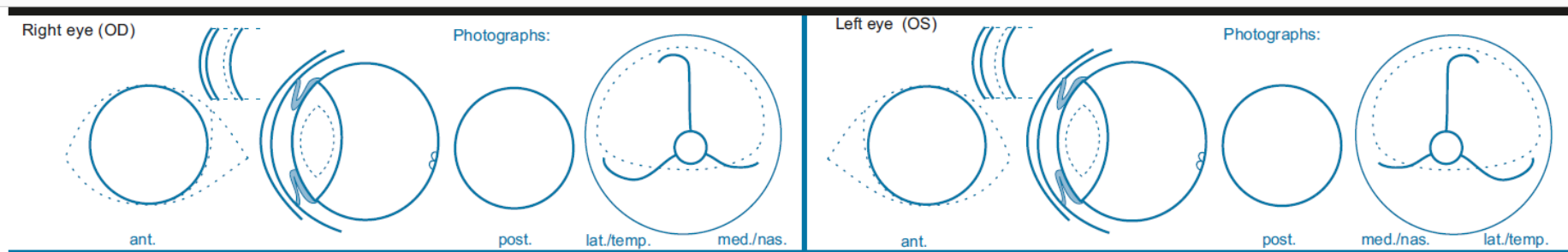| Ratio A/B: Terminology:	PL not visible closed affected (severe)	A < 1/3 of B narrow affected (moderate)	A ≥ 1/3 of B open ✓ normal

Gonioscopy: the entire ICA looks like the section on the slide

NEW CERTIFICATE

Right eye (OD)   Photographs:

ant.   post.   lat./temp.   med./nas.

Left eye (OS)   Photographs:

ant.   post.   med./nas.   lat./temp.

Descriptive comments:
....
....
....

8. ICAA: PLA   ▭ mild   ▭ moderate   ▭ severe

ICA width   ▭ narrow (moderate)   ▭ closed (severe)

Eye disease no. ....   ▭ mild   ▭ severe

Results for the known or presumed hereditary eye diseases (KP-HED):			
	*UNAFFECTED	**UNDETERMINED	*AFFECTED
1. Persistent Pupillary Membrane (PPM)	▭	▭	▭ iris ▭ cornea / ▭ lens ▭ lamina
2. Persistent Hyperpl.Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	▭	▭	▭ grade 1 / ▭ grade 2-6
3. Cataract (congenital)	▭	▭	▭
4. Retinal Dysplasia (RD)	▭	▭	▭ (multi)focal / ▭ geographical / ▭ total
5. Hypoplastic-/Micro-papilla	▭	▭	▭
6. Collie Eye Anomaly (CEA)	▭	▭	▭ choroid. hypoplasia / ▭ coloboma / ▭ other:
7. Other:	▭	▭	▭
8. IridoCorneal Angle Abnormality. (ICAA)	**X**		▭ mild / ▭ moderate / ▭ severe

Results valid for 12 months			
	*UNAFFECTED	***SUSPICIOUS	*AFFECTED
11. Entropion/Trichiasis	▭	▭	▭
12. Ectropion/Macroblepharon	▭	▭	▭
13. Distichiasis /Ectopic cilia	▭	▭	▭
14. Corneal dystrophy	▭	▭	▭
15. Cataract (non-congenital)	▭	▭	▭ cortical / post. pol. / ant sut. l. / punctata / nucleus / other
16. Lens luxation (primary)	▭	▭	▭
17. Retinal degeneration (PRA)	▭	▭	▭
18. Other:	▭	▭	▭

Interpretation

Grading of ICAA

PLA
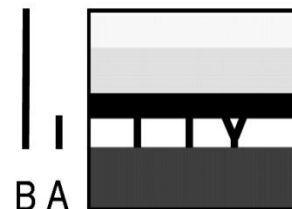
- 0 – 50% FL = **unaffected** ✓
- >50-100% FL **and/or** < 25% LA = **affected (mild)**
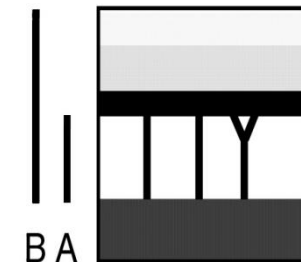- 25-50% LA = **affected (moderate)**
- > 50% LA = **affected (severe)**

ICA width

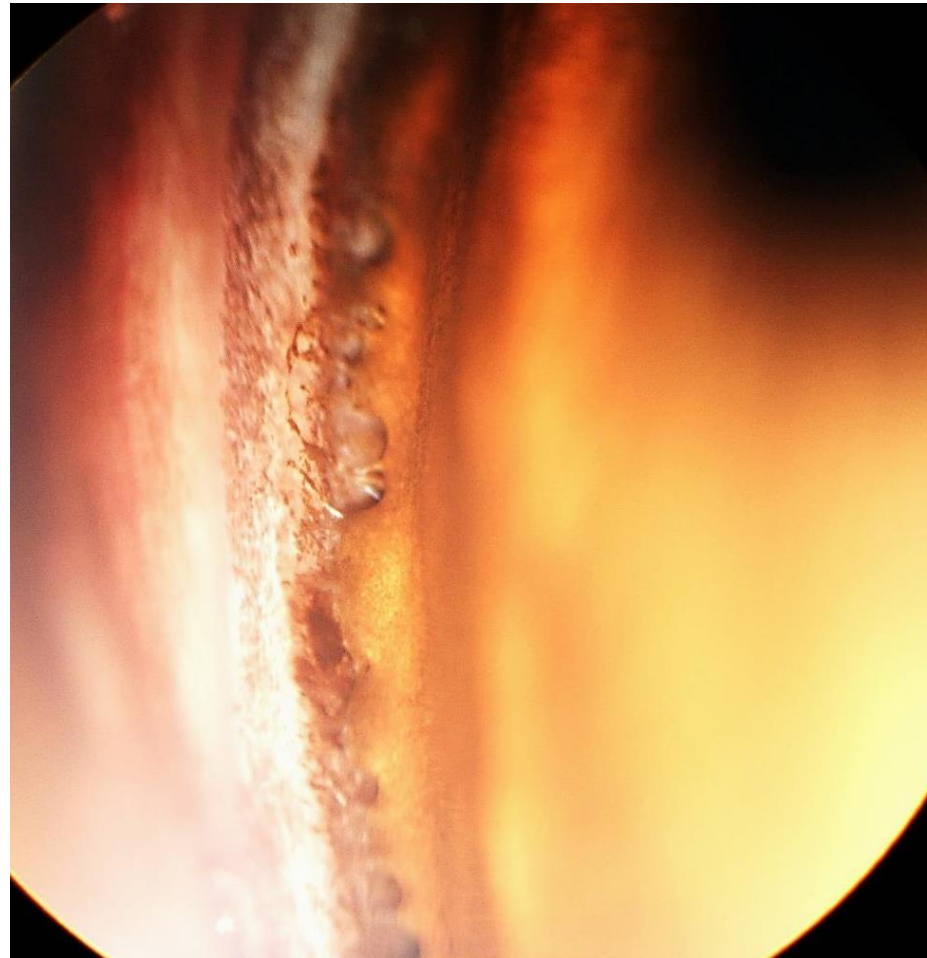| Ratio A/B: Terminology:	**PL not visible** **closed** **affected (severe)**	**A < 1/3 of B** **narrow** **affected (moderate)**	**A ≥ 1/3 of B** **open** ✓ **normal**

Gonioscopy: the entire ICA looks like the section on the slide

NEW CERTIFICATE

Right eye (OD)	Photographs:			Left eye (OS)	Photographs:		
ant.		post.	lat./temp.	med./nas.	ant.	post.	med./nas.	lat./temp.

Descriptive comments:
....
....
....

8. ICAA: PLA   ☐ mild   ☐ moderate   ☒ severe

ICA width   ☐ narrow (moderate)   ☐ closed (severe)

Eye disease no. .... ☐ mild   ☐ severe

Results for the known or presumed hereditary eye diseases (KP-HED):	UNAFFECTED *	UNDETERMINED **	AFFECTED *	
1. Persistent Pupillary Membrane (PPM)	☐	☐	☐	iris / lens — cornea / lamina
2. Persistent Hyperpl.Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	☐	☐	☐	grade 1 / grade 2-6
3. Cataract (congenital)	☐	☐	☐	
4. Retinal Dysplasia (RD)	☐	☐	☐	(multi)focal / geographical / total
5. Hypoplastic-/Micro-papilla	☐	☐	☐	
6. Collie Eye Anomaly (CEA)	☐	☐	☐	choroid. hypoplasia / coloboma / other:
7. Other:	☐	☐	☐	mild
8. IridoCorneal Angle Abnormality. (ICAA)	☐		☒	☒ moderate / severe

Interpretation

Results valid for 12 months	UNAFFECTED *	SUSPICIOUS ***	AFFECTED *	
11. Entropion/Trichiasis	☐	☐	☐	
12. Ectropion/Macroblepharon	☐	☐	☐	
13. Distichiasis /Ectopic cilia	☐	☐	☐	
14. Corneal dystrophy	☐	☐	☐	cortical / post. pol. / ant sut. l. / punctata / nucleus / other
15. Cataract (non-congenital)	☐	☐	☐	
16. Lens luxation (primary)	☐	☐	☐	
17. Retinal degeneration (PRA)	☐	☐	☐	
18. Other:	☐	☐	☐	

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Grading of ICAA
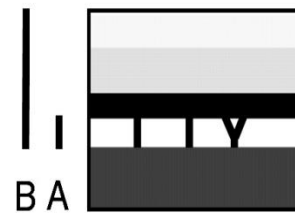

PLA

- 0 – 50% FL = **unaffected**
- >50-100% FL **and/or** < 25% LA = **affected (mild)**
- 25-50% LA = **affected (moderate)**
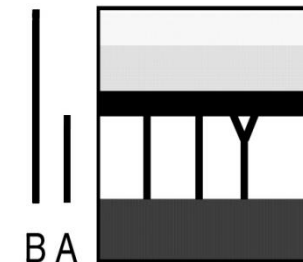- > 50% LA = **affected (severe)** ✓

ICA width

Ratio A/B:			
Terminology:	**PL not visible**	**A < 1/3 of B**	**A ≥ 1/3 of B**
	closed	**narrow**	**open** ✓
	affected (severe)	**affected (moderate)**	**normal**

Gonioscopy: the entire ICA looks like the section on the slide

Right eye (OD) Photographs:

ant.   post.   lat./temp.   med./nas.

Left eye (OS) Photographs:

ant.   post.   med./nas.   lat./temp.

Descriptive comments:

8. ICAA: PLA ☐ mild ☐ moderate ☐ severe

ICA width ☐ narrow (moderate) ☐ closed (severe)

Eye disease no. .... ☐ mild ☐ severe

Results for the known or presumed hereditary eye diseases (KP-HED):	* UNAFFECTED	** UNDETERMINED	* AFFECTED	
1. Persistent Pupillary Membrane (PPM)	☐	☐	☐ iris / ☐ lens	☐ cornea / ☐ lamina
2. Persistent Hyperpl.Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	☐	☐	☐ grade 1 / ☐ grade 2-6	
3. Cataract (congenital)	☐	☐	☐	
4. Retinal Dysplasia (RD)	☐	☐	☐ (multi)focal / ☐ geographical / ☐ total	
5. Hypoplastic-/Micro-papilla	☐	☐	☐	
6. Collie Eye Anomaly (CEA)	☐	☐	☐ choroid. hypoplasia / ☐ coloboma / ☐ other:	
7. Other:	☐	☐	☐	
8. IridoCorneal Angle Abnormality. (ICAA)	**X**		☐ mild / ☐ moderate / ☐ severe	

Interpretation

Results valid for 12 months	* UNAFFECTED	*** SUSPICIOUS	* AFFECTED	
11. Entropion/Trichiasis	☐	☐	☐	
12. Ectropion/Macroblepharon	☐	☐	☐	
13. Distichiasis /Ectopic cilia	☐	☐	☐	
14. Corneal dystrophy	☐	☐	☐	☐ cortical / ☐ post. pol. / ☐ ant sut. l. / ☐ punctata / ☐ nucleus / ☐ other
15. Cataract (non-congenital)	☐	☐	☐	
16. Lens luxation (primary)	☐	☐	☐	
17. Retinal degeneration (PRA)	☐	☐	☐	
18. Other:	☐	☐	☐	

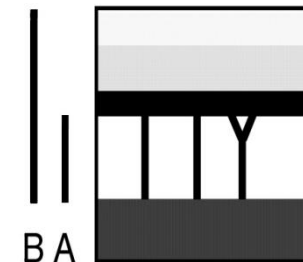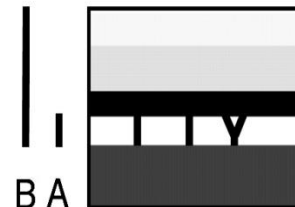# Grading of ICAA

PLA

- 0 – 50% FL ✓ = **unaffected**
- >50-100% FL **and/or** < 25% LA = **affected (mild)**
- 25-50% LA = **affected (moderate)**
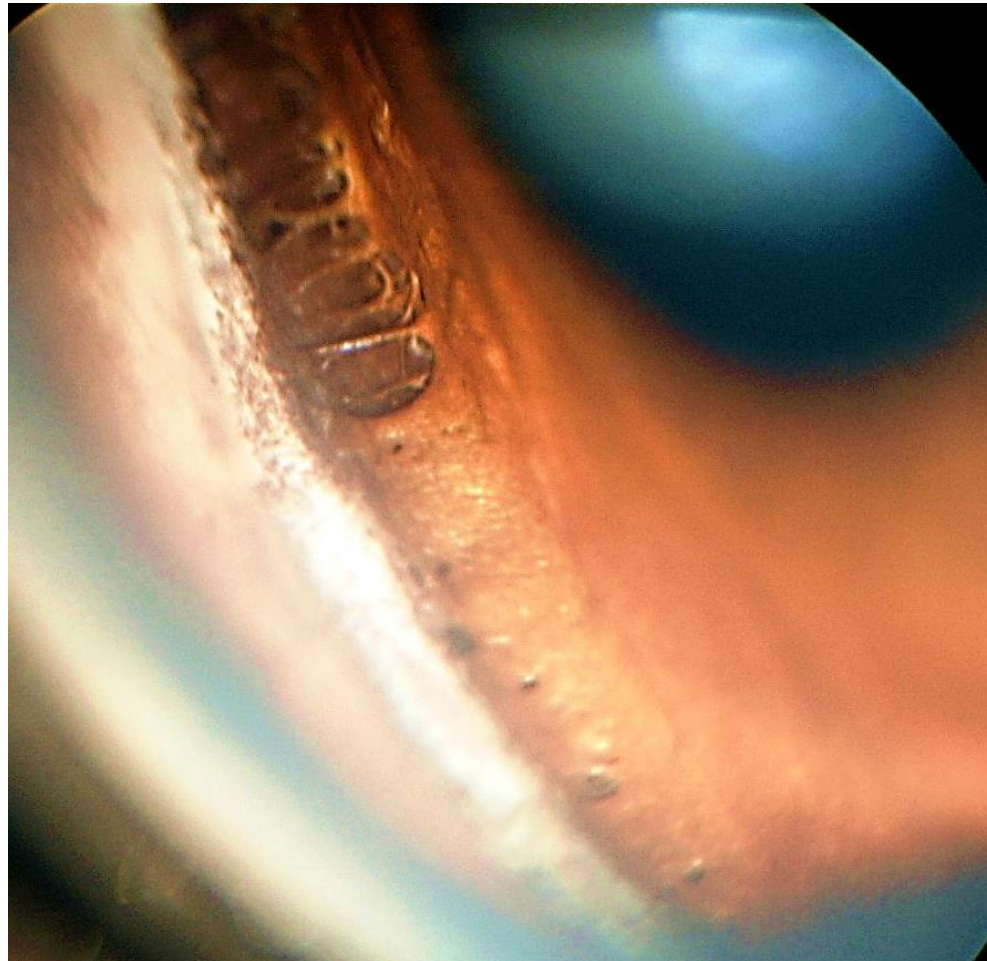- > 50% LA = **affected (severe)**

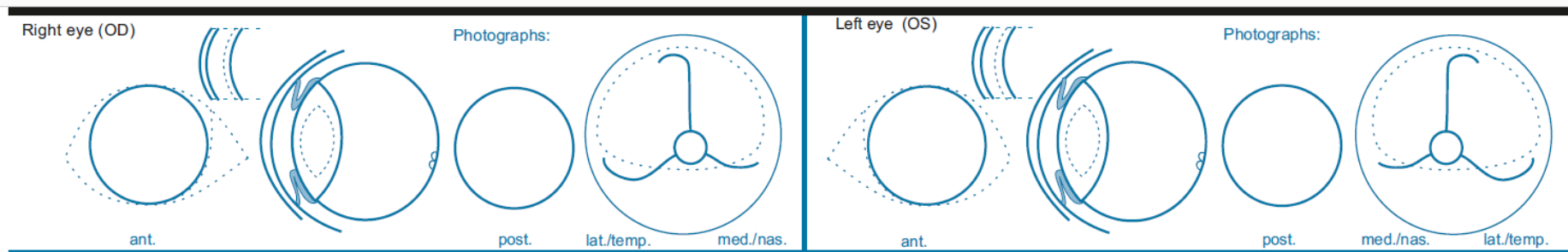## ICA width

Ratio A/B:		
Terminology:	**PL not visible**	**A < 1/3 of B**	**A ≥ 1/3 of B** ✓
	closed	**narrow**	**open**
	affected (severe)	**affected (moderate)**	**normal**

Gonioscopy: the entire ICA looks like the section on the slide

Right eye (OD)   Photographs:

ant.   post.   lat./temp.   med./nas.

Left eye (OS)   Photographs:

ant.   post.   med./nas.   lat./temp.

Descriptive comments: ....

8. ICAA: PLA   ☐ mild   ☐ moderate   ☒ severe

ICA width   ☐ narrow (moderate)   ☐ closed (severe)

Eye disease no. .... ☐ mild   ☐ severe

Results for the known or presumed hereditary eye diseases (KP-HED):	UNAFFECTED *	UNDETERMINED **	AFFECTED *		
1. Persistent Pupillary Membrane (PPM)	☐	☐	☐ iris / ☐ lens	☐ cornea / ☐ lamina	
2. Persistent Hyperpl.Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	☐	☐	☐ grade 1 / ☐ grade 2-6		
3. Cataract (congenital)	☐	☐	☐		
4. Retinal Dysplasia (RD)	☐	☐	☐ (multi)focal / ☐ geographical / ☐ total		
5. Hypoplastic-/Micro-papilla	☐	☐	☐		
6. Collie Eye Anomaly (CEA)	☐	☐	☐ choroid. hypoplasia / ☐ coloboma / ☐ other:		
7. Other:	☐	☐	☐		
8. IridoCorneal Angle Abnormality. (ICAA)	☐		☒ mild / ☒ moderate / ☐ severe		

Interpretation

Results valid for 12 months	UNAFFECTED *	SUSPICIOUS ***	AFFECTED *	
11. Entropion/Trichiasis	☐	☐	☐	
12. Ectropion/Macroblepharon	☐	☐	☐	
13. Distichiasis /Ectopic cilia	☐	☐	☐	
14. Corneal dystrophy	☐	☐	☐	☐ cortical / ☐ post. pol. / ☐ ant sut. l. / ☐ punctata / ☐ nucleus / ☐ other
15. Cataract (non-congenital)	☐	☐	☐	
16. Lens luxation (primary)	☐	☐	☐	
17. Retinal degeneration (PRA)	☐	☐	☐	
18. Other:	☐	☐	☐	

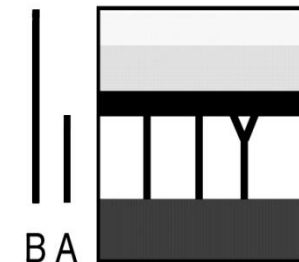# Grading of ICAA

PLA

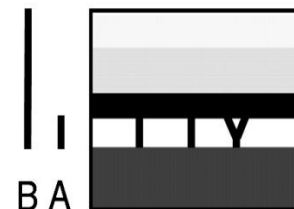- 0 – 50% FL = **unaffected**
- >50-100% FL **and/or** < 25% LA = **affected (mild)**
- 25-50% LA = **affected (moderate)**
- > 50% LA = **affected (severe)** ✓

ICA width

Ratio A/B: Terminology:	PL not visible **closed** affected (severe)	A < 1/3 of B **narrow** affected (moderate)	A ≥ 1/3 of B **open** ✓ normal

Gonioscopy: the entire ICA looks like the section on the slide

NEW CERTIFICATE

Right eye (OD) — ant. / post. / lat./temp. / med./nas. — Photographs:

Left eye (OS) — ant. / post. / med./nas. / lat./temp. — Photographs:

Descriptive comments: ....

Eye disease no. .... ☐ mild   ☐ severe

8. ICAA: PLA   ☐ mild   ☐ moderate   ☐ severe

ICA width   ☐ narrow (moderate)   ☒ closed (severe)

Results for the known or presumed hereditary eye diseases (KP-HED):	UNAFFECTED *	UNDETERMINED **	AFFECTED *
1. Persistent Pupillary Membrane (PPM)	☐	☐	☐ iris / ☐ lens / ☐ cornea / ☐ lamina
2. Persistent Hyperpl. Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	☐	☐	☐ grade 1 / ☐ grade 2-6
3. Cataract (congenital)	☐	☐	☐
4. Retinal Dysplasia (RD)	☐	☐	☐ (multi)focal / ☐ geographical / ☐ total
5. Hypoplastic-/Micro-papilla	☐	☐	☐
6. Collie Eye Anomaly (CEA)	☐	☐	☐ choroid. hypoplasia / ☐ coloboma / ☐ other:
7. Other:	☐	☐	☐
8. IridoCorneal Angle Abnormality. (ICAA)	☐	☒	☐ mild / ☒ moderate / ☐ severe

Interpretation

Results valid for 12 months	UNAFFECTED *	SUSPICIOUS ***	AFFECTED *
11. Entropion/Trichiasis	☐	☐	☐
12. Ectropion/Macroblepharon	☐	☐	☐
13. Distichiasis /Ectopic cilia	☐	☐	☐
14. Corneal dystrophy	☐	☐	☐
15. Cataract (non-congenital)	☐	☐	☐ cortical / post. pol. / ant sut. l. / punctata / nucleus / other
16. Lens luxation (primary)	☐	☐	☐
17. Retinal degeneration (PRA)	☐	☐	☐
18. Other:	☐	☐	☐

Grading of ICAA

PLA

- ˝ 0 – 50% FL = **unaffected**
- ˝ >50-100% FL **and/or** < 25% LA = **affected (mild)**
- ˝ 25-50% LA = **affected (moderate)**
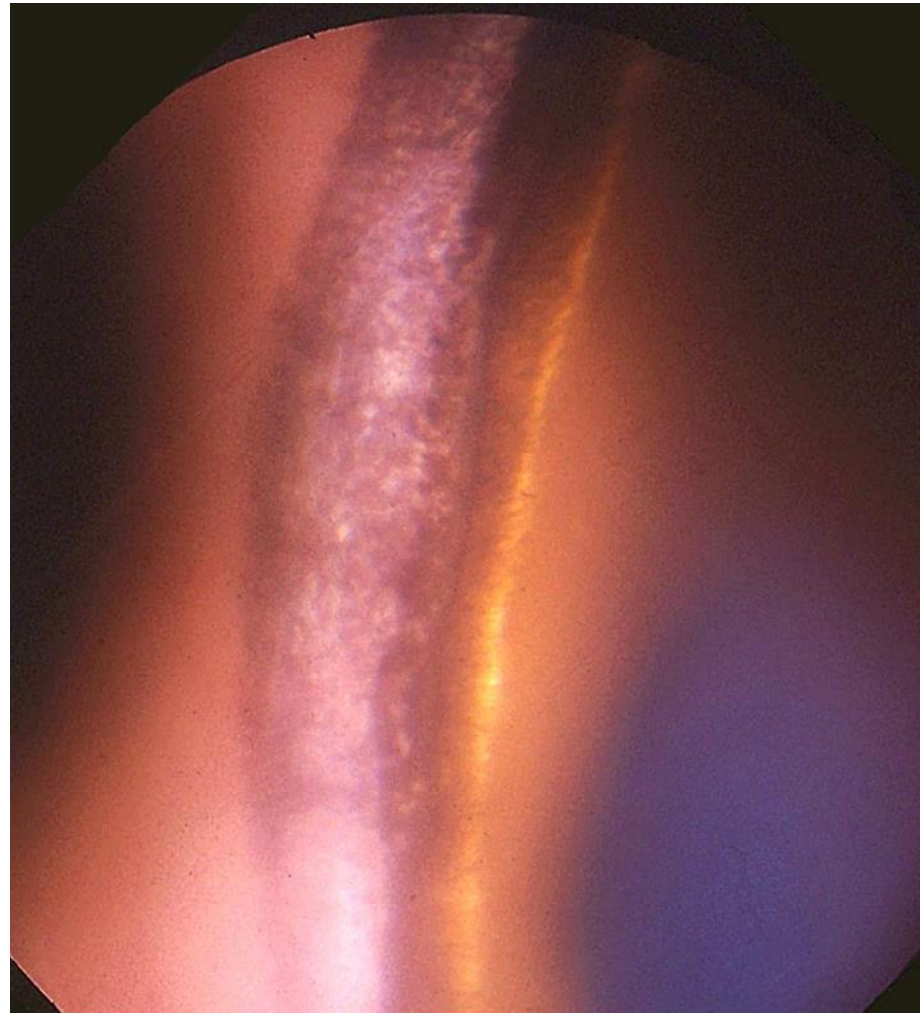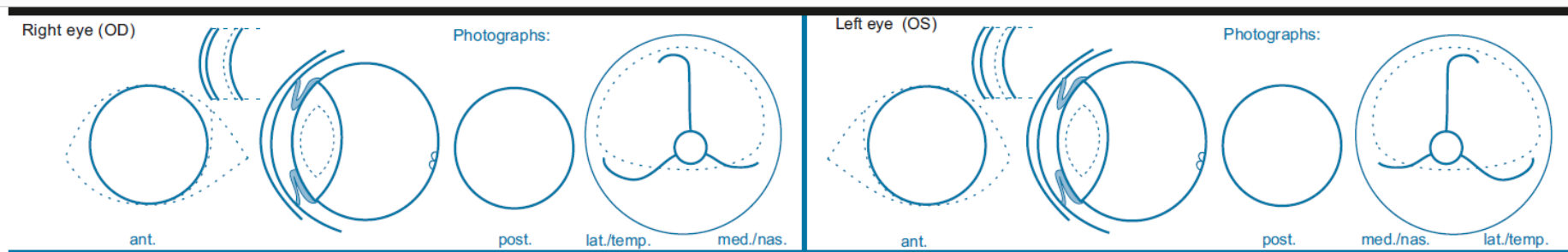- ˝ > 50% LA = **affected (severe)**

ICA width

Ratio A/B: Terminology:	**PL not visible** **closed** ✓ **affected (severe)**	**A < 1/3 of B** **narrow** **affected (moderate)**	**A ≥ 1/3 of B** **open** **normal**

Gonioscopy: the entire ICA looks like the section on the slide

NEW CERTIFICATE

Right eye (OD)   Photographs:
ant.   post.   lat./temp.   med./nas.

Left eye (OS)   Photographs:
ant.   post.   med./nas.   lat./temp.

Descriptive comments:
....
....
....

Eye disease no. .... ☐ mild   ☐ severe

8. ICAA: PLA   ☐ mild   ☐ moderate   ☐ severe

ICA width   ☒ narrow (moderate)   ☐ closed (severe)

Results for the known or presumed hereditary eye diseases (KP-HED):

	UNAFFECTED *	UNDETERMINED **	AFFECTED *	
1. Persistent Pupillary Membrane (PPM)	☐	☐	☐	☐ iris / ☐ lens / ☐ cornea / ☐ lamina
2. Persistent Hyperpl.Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	☐	☐	☐	☐ grade 1 / ☐ grade 2-6
3. Cataract (congenital)	☐	☐	☐	
4. Retinal Dysplasia (RD)	☐	☐	☐	☐ (multi)focal / ☐ geographical / ☐ total
5. Hypoplastic-/Micro-papilla	☐	☐	☐	
6. Collie Eye Anomaly (CEA)	☐	☐	☐	☐ choroid. hypoplasia / ☐ coloboma / ☐ other:
7. Other:	☐	☐	☐	
8. IridoCorneal Angle Abnormality. (ICAA)	☐	☒	☒	☐ mild / ☐ moderate / ☐ severe

Interpretation

Results valid for 12 months

	UNAFFECTED *	SUSPICIOUS ***	AFFECTED *	
11. Entropion/Trichiasis	☐	☐	☐	
12. Ectropion/Macroblepharon	☐	☐	☐	
13. Distichiasis /Ectopic cilia	☐	☐	☐	
14. Corneal dystrophy	☐	☐	☐	☐ cortical / ☐ post. pol. / ☐ ant sut. l. / ☐ punctata / ☐ nucleus / ☐ other
15. Cataract (non-congenital)	☐	☐	☐	
16. Lens luxation (primary)	☐	☐	☐	
17. Retinal degeneration (PRA)	☐	☐	☐	
18. Other:	☐	☐	☐	

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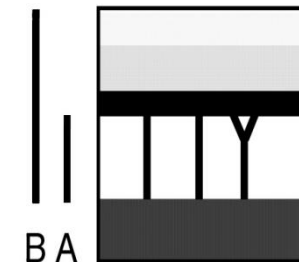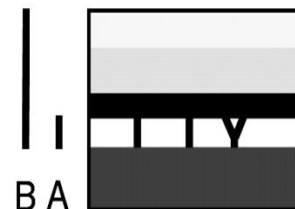# Grading of ICAA

PLA

ʺ 0 – 50% FL = **unaffected** ✓

ʺ >50-100% FL **and/or** < 25% LA = **affected (mild)**

ʺ 25-50% LA = **affected (moderate)**
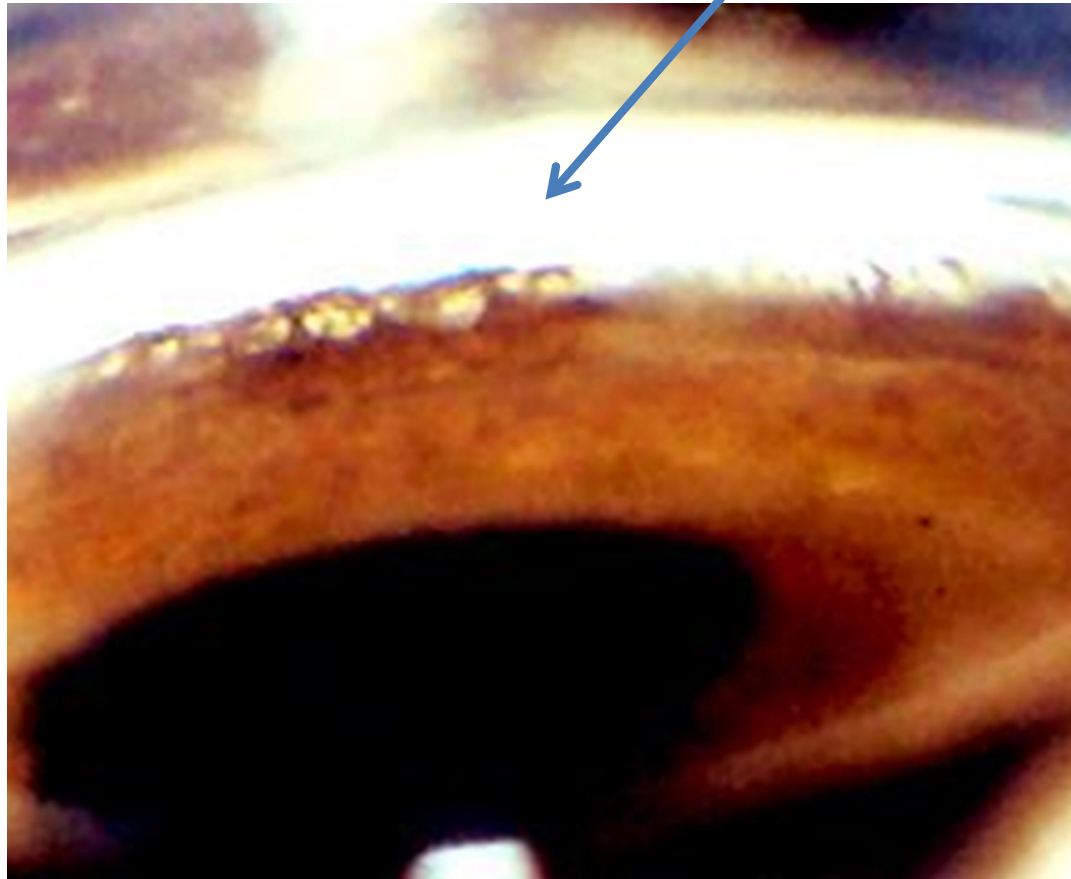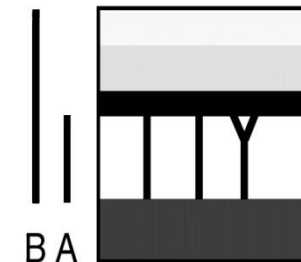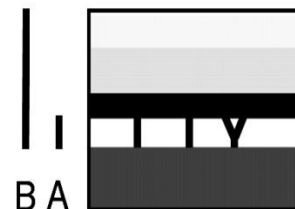
ʺ > 50% LA = **affected (severe)**
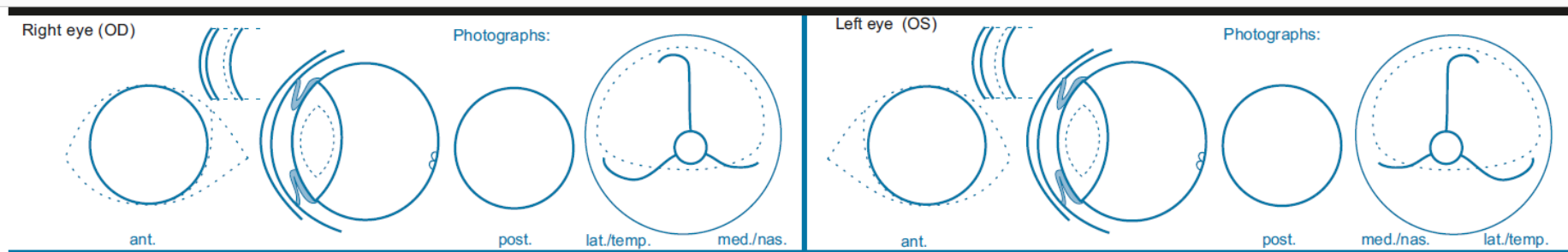

ICA width

Ratio A/B:			
Terminology:	**PL not visible**	**A < 1/3 of B**	**A ≥ 1/3 of B**
	closed	**narrow** ✓	**open**
	affected (severe)	**affected (moderate)**	**normal**

Gonioscopy: the entire ICA looks like the section on the slide

NEW CERTIFICATE

Right eye (OD)   Photographs:

ant.   post.   lat./temp.   med./nas.

Left eye (OS)   Photographs:

ant.   post.   med./nas.   lat./temp.

Descriptive comments:
....
....
....

8. ICAA: PLA   ☐ mild   ☐ moderate   ☐ severe

ICA width   ☐ narrow (moderate)   ☒ closed (severe)

Eye disease no. ....   ☐ mild   ☐ severe

Results for the known or presumed hereditary eye diseases (KP-HED):			
	UNAFFECTED *	UNDETERMINED **	AFFECTED *
1. Persistent Pupillary Membrane (PPM)	☐	☐	☐ iris / cornea ☐ lens / lamina
2. Persistent Hyperpl.Tunica Vasculosa Lentis/Primary Vitreous (PHTVL/PHPV)	☐	☐	☐ grade 1 ☐ grade 2-6
3. Cataract (congenital)	☐	☐	☐
4. Retinal Dysplasia (RD)	☐	☐	☐ (multi)focal ☐ geographical ☐ total
5. Hypoplastic-/Micro-papilla	☐	☐	☐
6. Collie Eye Anomaly (CEA)	☐	☐	☐ choroid. hypoplasia ☐ coloboma ☐ other:
7. Other:	☐	☐	☐
8. IridoCorneal Angle Abnormality. (ICAA)	☐	☒	☐ mild ☐ moderate ☒ severe

Interpretation

Results valid for 12 months			
	UNAFFECTED *	SUSPICIOUS ***	AFFECTED *
11. Entropion/Trichiasis	☐	☐	☐
12. Ectropion/Macroblepharon	☐	☐	☐
13. Distichiasis /Ectopic cilia	☐	☐	☐
14. Corneal dystrophy	☐	☐	☐
15. Cataract (non-congenital)	☐	☐	☐ cortical / post. pol. / ant sut. l. / punctata / nucleus / other
16. Lens luxation (primary)	☐	☐	☐
17. Retinal degeneration (PRA)	☐	☐	☐
18. Other:	☐	☐	☐

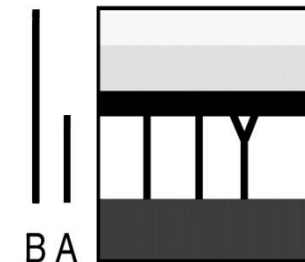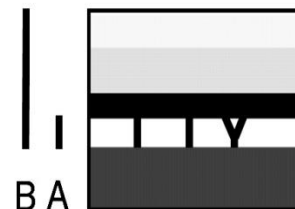# Grading of ICAA

PLA

˝ 0 – 50% FL = **unaffected**

˝ >50-100% FL **and/or** < 25% LA = **affected (mild)**

˝ 25-50% LA = **affected (moderate)**

˝ > 50% LA = **affected (severe)**

ICA width

Ratio A/B:			
Terminology:	**PL not visible**	**A < 1/3 of B**	**A ≥ 1/3 of B**
	closed ✓	**narrow**	**open**
	affected (severe)	**affected (moderate)**	**normal**