

Supplement

Center	Number of Patients	Device type
Bangkok, Thailand	25	Cirrus
Barcelona, Spain	13	Cirrus and Spectralis
Belo Horizonte, Brazil	57	Spectralis
Berlin, Germany	76	Spectralis
Düsseldorf, Germany	11	Spectralis
Goyang, Korea	50	Topcon
Isfahan, Iran	40	Spectralis
Istanbul, Turkey	8	Cirrus
Lyon, France	8	Spectralis
Mangalore, India	40	Spectralis
Maracaibo, Venezuela	3	Spectralis
Michigan, USA	5	Spectralis
Milan, Italy	30	Spectralis
Munich, Germany	11	Spectralis
New York City, USA	6	Cirrus and Spectralis
Odense, Denmark	9	Spectralis
Oxford, United Kingdom	48	Spectralis
Petah Tikva, Israel	25	Cirrus
Sao Paulo, Brazil	9	Spectralis
Seattle, USA	30	Cirrus
Strasbourg, France	25	Spectralis
Total	539	

Table 1: Participating centers with number of patients included in this study and the devices used for the OCT imaging

	HC	AQP4-IgG	MOG-IgG	AQP4-IgG vs HC			AQP4-IgG vs MOG-IgG			MOG-IgG vs HC		
				B	SE	p	B	SE	p	B	SE	p
Number of eyes	148	317	55									
mRNFL μm (mean \pm SD)	17.42 \pm 2.33	17.59 \pm 2.22	17.56 \pm 2.60	-1.39	0.27	<0.001	-0.45	0.41	0.262	-1.58	0.42	<0.001
GCIP μm (mean \pm SD)	66.30 \pm 19.47	64.81 \pm 21.53	64.76 \pm 17.87	-20.62	2.24	<0.001	-4.52	4.01	0.261	-22.67	2.43	<0.001
INL μm (mean \pm SD)	40.98 \pm 6.55	39.54 \pm 6.04	41.02 \pm 7.18	-0.75	0.71	0.295	-3.19	1.19	0.007	0.36	1.11	0.746
OPL μm (mean \pm SD)	27.24 \pm 6.86	27.08 \pm 7.72	27.12 \pm 7.26	-1.18	0.98	0.226	-1.39	1.32	0.293	-0.74	1.41	0.601
ONL μm (mean \pm SD)	78.61 \pm 11.37	77.85 \pm 11.83	79.10 \pm 13.98	2.91	1.43	0.043	-0.66	2.43	0.787	4.18	2.36	0.079
OPNL μm (mean \pm SD)	105.86 \pm 9.15	104.93 \pm 9.35	106.22 \pm 11.86	1.81	1.07	0.091	-1.34	2.05	0.514	3.00	1.61	0.064
PR μm (mean \pm SD)	87.89 \pm 3.51	87.82 \pm 3.71	88.41 \pm 3.05	-0.54	0.42	0.203	-0.24	0.75	0.750	0.03	0.60	0.953
RT μm (mean \pm SD)	318.50 \pm 23.80	314.70 \pm 25.27	318.12 \pm 25.86	-20.80	2.73	<0.001	-10.37	4.72	0.030	-24.46	3.52	<0.001

Table 2: 3mm Study - Cross-sectional OCT results (Spectralis devices only). Abbreviations: mRNFL, macular retinal nerve fiber layer; GCIP, ganglion cell and inner plexiform layer; INL, inner nuclear layer; OPL, outer plexiform layer; ONL, outer nuclear layer; OPNL, outer plexiform and nuclear layer; PR, photoreceptor

layer; RT, total retinal thickness; HC, healthy control, AQP4-IgG, aquaporin-4 immunoglobulin G; MOG-IgG, myelin oligodendrocyte glycoprotein immunoglobulin-G.

	HC	AQP4-IgG	MOG-IgG	AQP4-IgG vs HC			AQP4-IgG vs MOG-IgG			MOG-IgG vs HC		
				B	SE	p	B	SE	p	B	SE	p
Number of eyes	148	317	55									
mRNFL μm (mean \pm SD)	13.38 \pm 1.57	13.09 \pm 1.48	13.03 \pm 1.55	-0.05	0.18	0.758	0.12	0.27	0.648	-0.53	0.21	0.012
GCIP μm (mean \pm SD)	32.43 \pm 10.68	25.13 \pm 10.45	24.93 \pm 9.28	-6.97	1.22	<0.001	-1.59	1.97	0.420	-7.23	1.50	<0.001
INL μm (mean \pm SD)	18.95 \pm 5.36	18.93 \pm 4.77	19.66 \pm 4.76	-0.53	0.57	0.353	-1.51	0.95	0.114	0.43	0.75	0.567
OPL μm (mean \pm SD)	20.99 \pm 5.14	20.49 \pm 5.49	19.90 \pm 4.60	-1.30	0.64	0.044	-0.92	0.99	0.334	-1.64	0.73	0.002
ONL μm (mean \pm SD)	88.66 \pm 8.67	89.45 \pm 10.25	90.73 \pm 14.31	0.64	1.23	0.600	-1.71	2.33	0.463	1.65	1.66	0.321
OPNL μm (mean \pm SD)	109.74 \pm 9.23	109.94 \pm 10.26	110.63 \pm 14.57	-0.72	1.15	0.530	-2.69	2.19	0.221	-0.19	1.58	0.904
PR μm (mean \pm SD)	94.31 \pm 2.95	93.53 \pm 3.37	93.66 \pm 3.20	-0.63	0.39	0.106	-0.06	0.69	0.934	-0.43	0.46	0.348
RT μm (mean \pm SD)	268.70 \pm 23.45	260.55 \pm 20.91	261.76 \pm 23.82	-9.21	2.40	<0.001	-6.09	4.06	0.135	-8.99	3.11	<0.001

Table 3: Imm Study - Cross-sectional OCT results (Spectralis devices only). Abbreviations: mRNFL, macular retinal nerve fiber layer; GCIP, ganglion cell and inner plexiform layer; INL, inner nuclear layer; OPL, outer plexiform layer; ONL, outer nuclear layer; OPNL, outer plexiform and nuclear layer; PR, photoreceptor layer; RT, total retinal thickness; HC, healthy control, AQP4-IgG, aquaporin-4 immunoglobulin G; MOG-IgG, myelin oligodendrocyte glycoprotein immunoglobulin-G.

	AQP4-ON	AQP4-NON	AQP4-ON vs. AQP4-NON			AQP4-ON vs HC			AQP4-NON vs HC		
			B	SE	p	B	SE	p	B	SE	p
Number of eyes	232	85									
mRNFL μm (mean \pm SD)	17.20 \pm 2.44	18.32 \pm 2.83	-1.09	0.31	<0.001	-1.64	0.30	<0.001	-0.71	0.45	0.116
GCIP μm (mean \pm SD)	59.33 \pm 16.21	76.21 \pm 15.98	-21.67	2.69	<0.001	-27.35	2.34	<0.001	-1.00	2.24	0.655

INL μm (mean\pmSD)	42.12 \pm 6.98	38.68 \pm 7.20	0.75	0.95	0.433	0.07	0.76	0.923	-1.26	1.33	0.348
OPL μm (mean\pmSD)	27.08 \pm 7.41	27.21 \pm 7.12	0.47	1.09	0.662	-0.61	1.04	0.562	-1.59	1.56	0.313
ONL μm (mean\pmSD)	83.28 \pm 12.43	70.32 \pm 13.22	3.52	1.89	0.066	3.70	1.62	0.024	-0.01	2.09	0.995
OPNL μm (mean\pmSD)	110.35 \pm 10.22	97.53 \pm 10.4	3.88	1.57	0.141	3.02	1.22	0.014	-1.17	1.60	0.469
PR μm (mean\pmSD)	88.67 \pm 2.90	87.84 \pm 3.34	0.91	0.63	0.148	-0.40	0.47	0.391	-1.49	0.61	0.170
RT μm (mean\pmSD)	317.90 \pm 22.87	318.58 \pm 31.96	-16.88	3.51	<0.001	-25.27	2.98	<0.001	-6.15	4.07	0.134

Table 4: 3mm Study - Cross-sectional AQP4-ON vs AQP4-NON OCT results (Spectralis devices only).

Abbreviations: mRNFL, macular retinal nerve fiber layer; GCIP, ganglion cell and inner plexiform layer; INL, inner nuclear layer; OPL, outer plexiform layer; ONL, outer nuclear layer; OPNL, outer plexiform and nuclear layer; PR, photoreceptor layer; RT, total retinal thickness; HC, healthy control, AQP4-IgG, aquaporin-4 immunoglobulin G; MOG-IgG, myelin oligodendrocyte glycoprotein immunoglobulin-G.

	AQP4-ON	AQP4-NON	AQP4-ON vs. AQP4-NON			AQP4-ON vs. HC			AQP4-NON vs HC		
			B	SE	p	B	SE	p	B	SE	p
Number of eyes	232	85									
mRNFL μm (mean\pmSD)	13.10 \pm 1.54	13.05 \pm 1.36	-0.05	0.22	<0.001	0.06	0.20	0.764	-0.33	0.20	0.135
GCIP μm (mean\pmSD)	22.45 \pm 9.56	30.79 \pm 10.11	-6.91	1.49	<0.001	-7.86	1.30	<0.001	-2.58	1.64	0.116
INL μm (mean\pmSD)	18.99 \pm 5.06	18.99 \pm 5.06	0.24	0.77	0.756	0.30	0.62	0.625	-1.62	0.81	0.047
OPL μm (mean\pmSD)	21.30 \pm 5.75	21.30 \pm 5.75	-1.38	0.83	0.100	-1.54	0.69	0.027	-0.60	0.87	0.494
ONL μm (mean\pmSD)	87.96 \pm 8.81	87.96 \pm 8.81	3.41	1.77	0.056	1.76	1.38	0.204	-0.98	1.49	0.513
OPNL μm (mean\pmSD)	109.26 \pm 9.12	109.26 \pm 9.12	-3.94	3.25	0.227	0.21	1.30	0.872	-1.76	1.45	0.225
PR μm (mean\pmSD)	93.93 \pm 3.07	93.39 \pm 3.07	0.45	0.56	0.427	-0.67	0.43	0.118	-0.75	0.50	0.132
RT μm (mean\pmSD)	265.42 \pm 21.79	265.42 \pm 21.79	-3.95	3.25	0.227	-8.21	2.65	0.002	-7.58	3.37	0.025

Table 5. 1mm Study - Cross-sectional AQP4-ON vs AQP4-NON OCT results (Spectralis devices only).

Abbreviations: mRNFL, macular retinal nerve fiber layer; GCIP, ganglion cell and inner plexiform layer; INL, inner nuclear layer; OPL, outer plexiform layer; ONL, outer nuclear layer; OPNL, outer plexiform and nuclear layer; PR, photoreceptor layer; RT, total retinal thickness; HC, healthy control, AQP4-IgG, aquaporin-4 immunoglobulin G; MOG-IgG, myelin oligodendrocyte glycoprotein immunoglobulin-G.

	MOG-ON	MOG-NON	MOG-ON vs. MOG-NON			MOG-ON vs. HC			MOG-NON vs HC		
			B	SE	p	B	SE	p	B	SE	p
Number of eyes	43	12									
mRNFL μm (mean\pmSD)	13.15 \pm 1.51	12.79 \pm 1.65	-0.15	0.44	0.729	0.62	0.25	0.013	-0.36	0.30	0.237
GCIP μm (mean\pmSD)	22.40 \pm 7.43	30.26 \pm 10.65	-12.20	2.49	<0.001	-11.84	1.69	<0.001	-0.64	2.22	0.773
INL μm (mean\pmSD)	20.05 \pm 4.50	18.84 \pm 5.30	0.05	1.14	0.968	0.35	0.90	0.384	0.42	1.14	0.711
OPL μm (mean\pmSD)	19.82 \pm 4.78	20.05 \pm 4.30	-2.00	1.28	0.127	-2.51	0.87	0.004	-0.15	1.09	0.887
ONL μm (mean\pmSD)	95.38 \pm 10.69	80.95 \pm 16.23	17.53	3.44	<0.001	5.73	1.69	0.001	-6.46	2.35	0.007

OPNL μm (mean \pm SD)	115.20 \pm 11.64	101.00 \pm 15.67	15.86	2.06	<0.001	3.03	1.69	0.075	-6.21	2.28	0.007
PR μm (mean \pm SD)	93.85 \pm 2.70	93.26 \pm 4.12	1.72	0.90	0.063	-0.14	0.52	0.793	-0.96	0.73	0.191
RT μm (mean \pm SD)	264.52 \pm 19.08	255.95 \pm 31.41	5.35	5.66	0.352	-10.04	3.56	0.005	-7.76	4.89	0.114

Table 6. 1mm Study - Cross-sectional MOG ON vs MOG-NON OCT results (Spectralis devices)

Abbreviations: mRNFL, macular retinal nerve fiber layer; GCIP, ganglion cell and inner plexiform layer; INL, inner nuclear layer; OPL, outer plexiform layer; ONL, outer nuclear layer; OPNL, outer plexiform and nuclear layer; PR, photoreceptor layer; RT, total retinal thickness; HC, healthy control, AQP4-IgG, aquaporin-4 immunoglobulin G; MOG-IgG, myelin oligodendrocyte glycoprotein immunoglobulin-G; ON, optic neuritis; NON, non-optic neuritis.

	Cirrus		Topcon	
	AQP4-IgG	MOG-IgG	AQP4-IgG	MOG-IgG
Number of eyes	47	5	36	8
mRNFL μm (mean \pm SD)	25.40 \pm 6.82	23.16 \pm 3.94	25.37 \pm 5.30	28.05 \pm 5.85
GCIP μm (mean \pm SD)	65.98 \pm 11.14	68.00 \pm 6.39	65.61 \pm 10.94	67.28 \pm 10.46
INL μm (mean \pm SD)	42.01 \pm 3.54	44.72 \pm 3.92	38.45 \pm 2.69	38.73 \pm 0.97
OPL μm (mean \pm SD)	24.13 \pm 1.86	26.10 \pm 2.55	26.22 \pm 1.46	27.07 \pm 1.10
ONL μm (mean \pm SD)	64.30 \pm 6.01	65.82 \pm 9.67	56.51 \pm 5.35	65.79 \pm 9.02
PR μm (mean \pm SD)	78.32 \pm 2.36	79.25 \pm 2.11	83.34 \pm 2.13	86.68 \pm 3.40
RT μm (mean \pm SD)	300.14 \pm 18.63	307.06 \pm 18.29	295.51 \pm 13.78	313.60 \pm 10.57

Table 7. 5mm Study - Cross-sectional OCT results (Topcon and Cirrus devices) Abbreviations: mRNFL, macular retinal nerve fiber layer; GCIP, ganglion cell and inner plexiform layer; INL, inner nuclear layer; OPL, outer plexiform layer; ONL, outer nuclear layer; PR, photoreceptor layer; RT, total retinal thickness; HC, healthy control, AQP4-IgG, aquaporin-4 immunoglobulin G; MOG-IgG, myelin oligodendrocyte glycoprotein immunoglobulin-G.