

File S3. Statistical analysis of hemodynamic changes in pancreatoduodenal arterial system after DP CAR.

Frequencies

		Patient #		Cumulative Percent
	Frequency	Percent	Valid Percent	
Valid	1	1	2.6	2.6
	2	1	2.6	5.3
	3	1	2.6	7.9
	4	1	2.6	10.5
	5	1	2.6	13.2
	7	1	2.6	15.8
	8	1	2.6	18.4
	9	1	2.6	21.1
	10	1	2.6	23.7
	12	1	2.6	26.3
	13	1	2.6	28.9
	14	1	2.6	31.6
	15	1	2.6	34.2
	16	1	2.6	36.8
	17	1	2.6	39.5
	18	1	2.6	42.1
	19	1	2.6	44.7
	20	1	2.6	47.4
	21	1	2.6	50.0
	22	1	2.6	52.6
	23	1	2.6	55.3
	24	1	2.6	57.9
	25	1	2.6	60.5
	26	1	2.6	63.2
	27	1	2.6	65.8
	28	1	2.6	68.4
	29	1	2.6	71.1
	30	1	2.6	73.7
	31	1	2.6	76.3
	32	1	2.6	78.9
	33	1	2.6	81.6
	34	1	2.6	84.2
	35	1	2.6	86.8
	36	1	2.6	89.5

37	1	2.6	2.6	92.1
38	1	2.6	2.6	94.7
39	1	2.6	2.6	97.4
40	1	2.6	2.6	100.0
Total	38	100.0	100.0	

Frequencies

		Type			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	classical	30	78.9	78.9	78.9
	aberrant	8	21.1	21.1	100.0
	Total	38	100.0	100.0	

		Puls preservation			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	no	4	10.5	10.5	10.5
	yes	34	89.5	89.5	100.0
	Total	38	100.0	100.0	

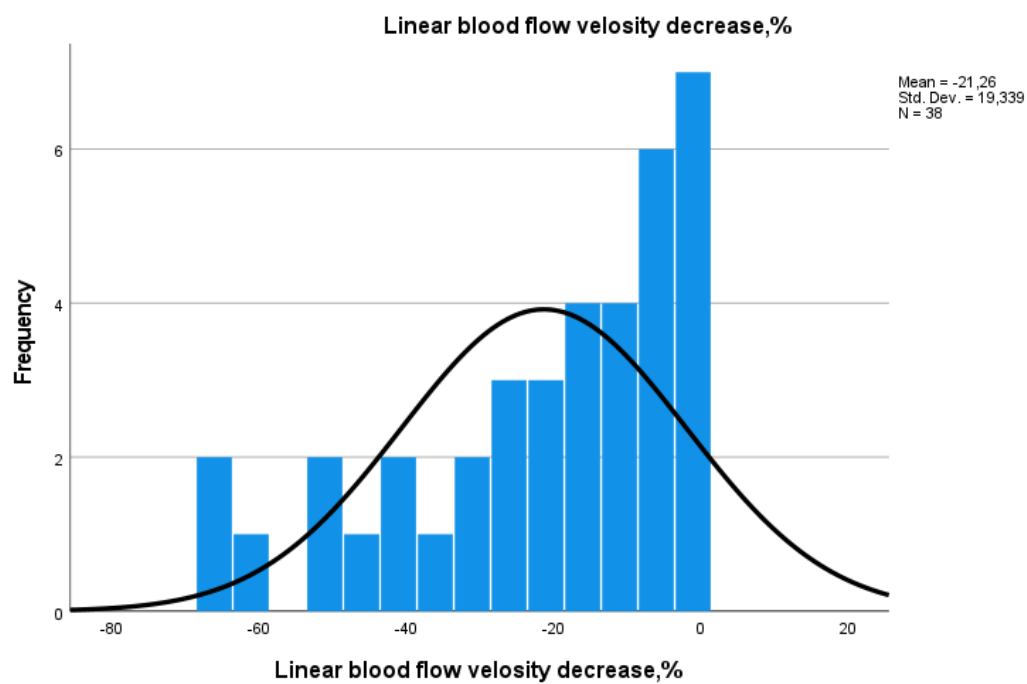
		Type od parenchimal blood flow			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	collateral	12	31.6	31.6	31.6
	main	26	68.4	68.4	100.0
	Total	38	100.0	100.0	

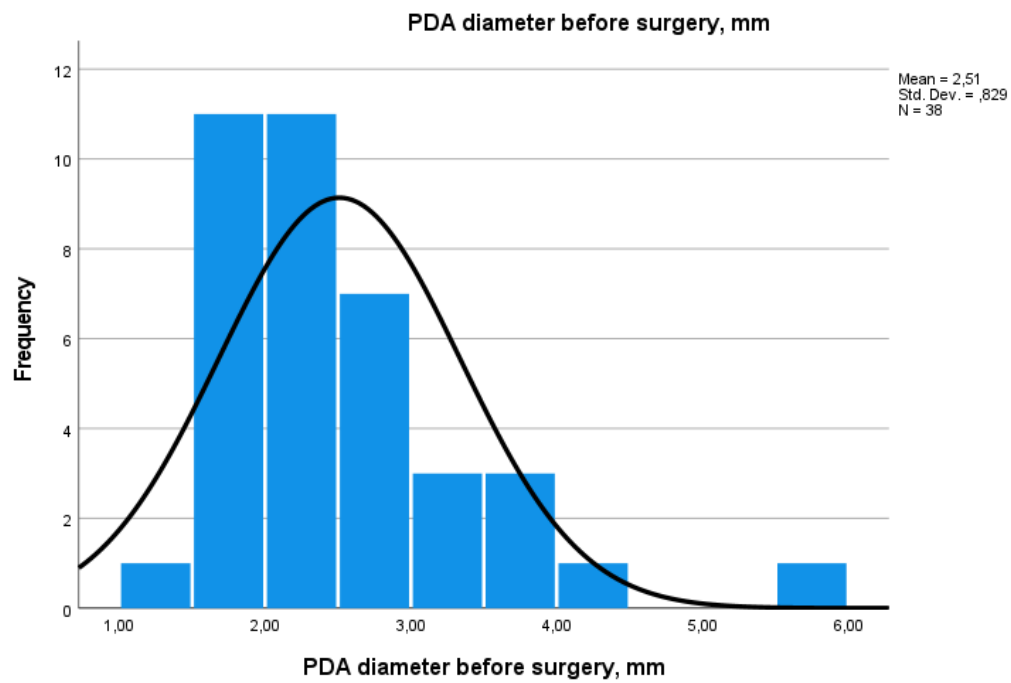
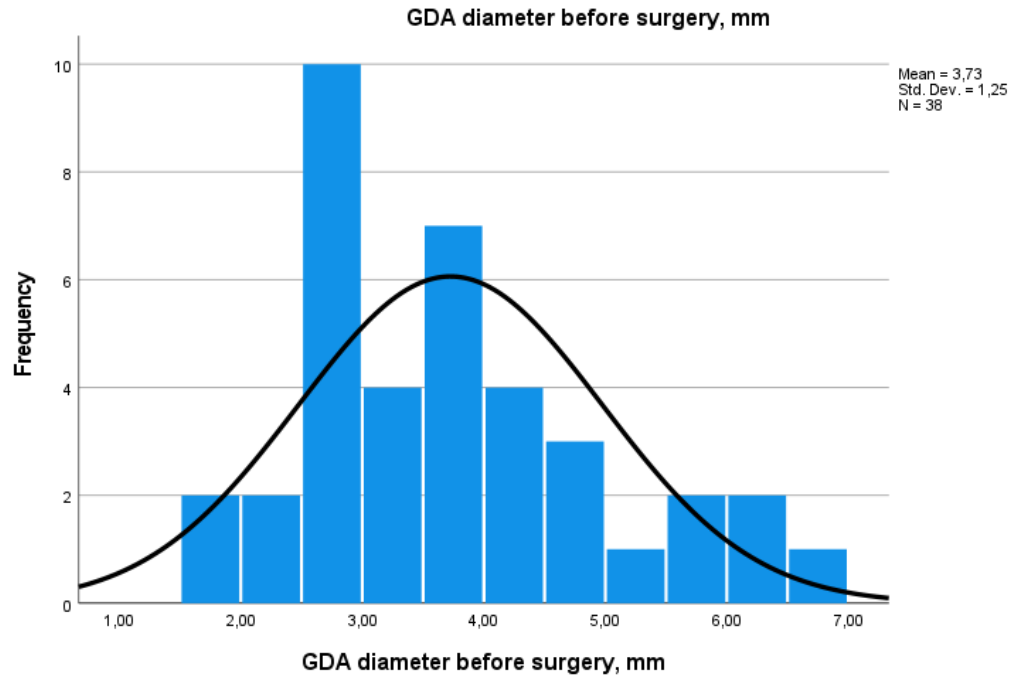
Frequencies

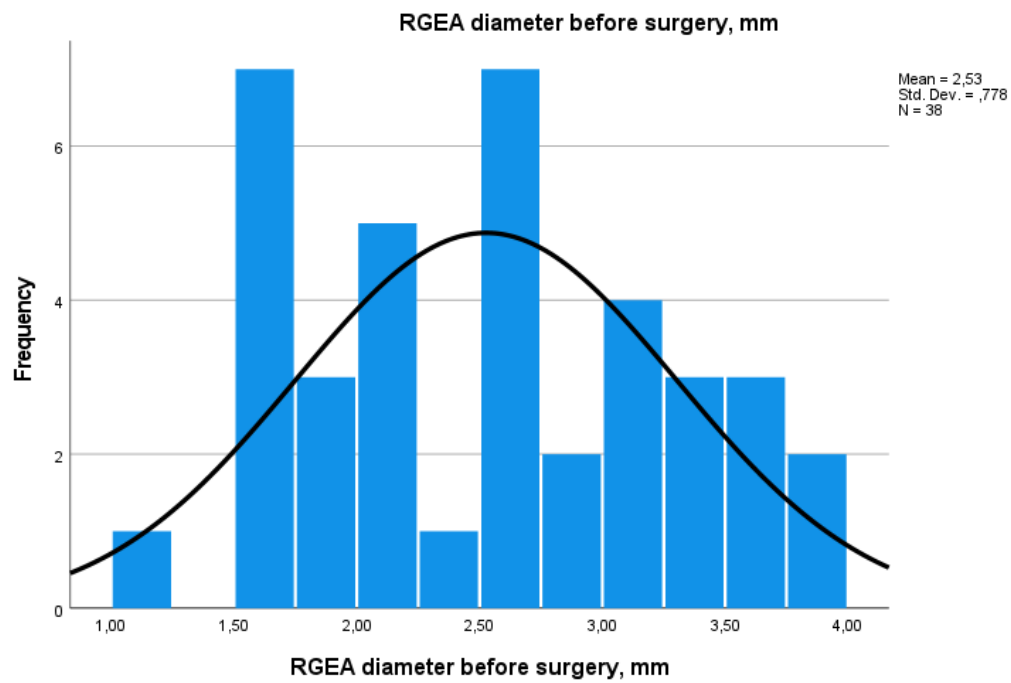
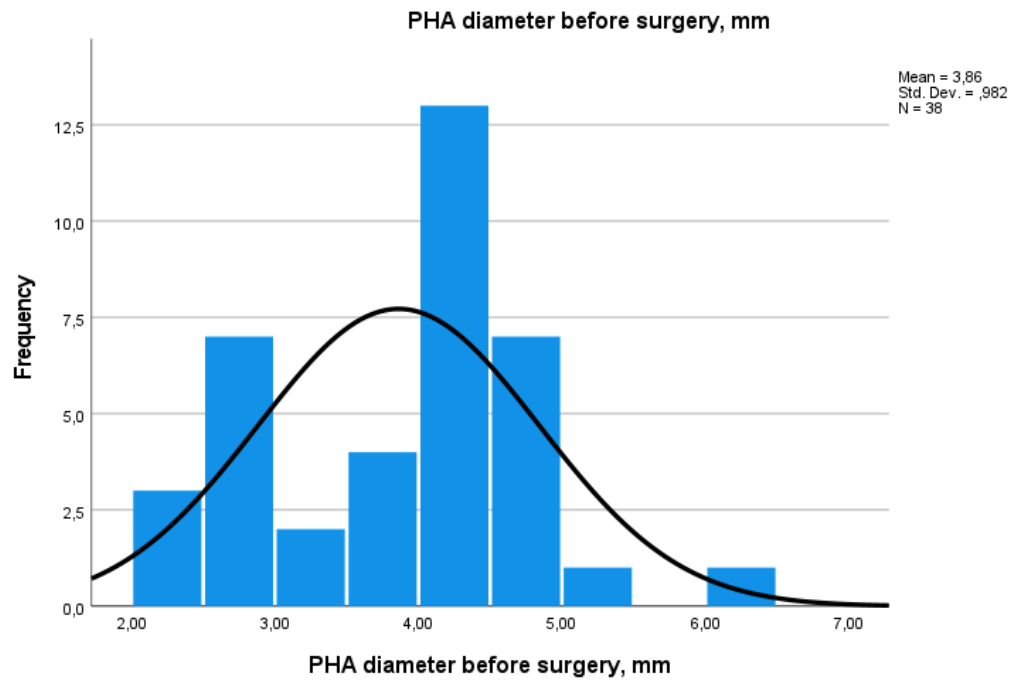
Statistics																			
		Linea				Preop				GDA PDA PHA RGEA				GDA PDA PHA RGEA					
		diamed	diamed	diamed	diamed	CHA/	CHA/	flow	flow	flow	flow	diamed	diamed	diamed	diamed	diamed	diamed	diamed	diamed
		ter	ter	ter	ter	GDA	PDA	intenc	intenc	intenc	intenc	ters	ters	ters	ters	ters	ters	ters	ters
		before	before	before	before	diamete	diamete	ity	ity	ity	ity	ratio	ratio	ratio	ratio	differe	differe	differe	differe
		surge	surge	surge	surge	ters	ters	altera	altera	altera	altera	after/	after/	after/	after/	after/	after/	after/	after/
		ry.	ry.	ry.	ry.	ratio	ratio	ion	ion	ion	ion	before	before	before	before	before	before	before	before
		mm	mm	mm	mm			before	before	before	before								
N	Valid	38	38	38	38	38	38	38	38	38	35	38	38	38	35	38	38	38	35

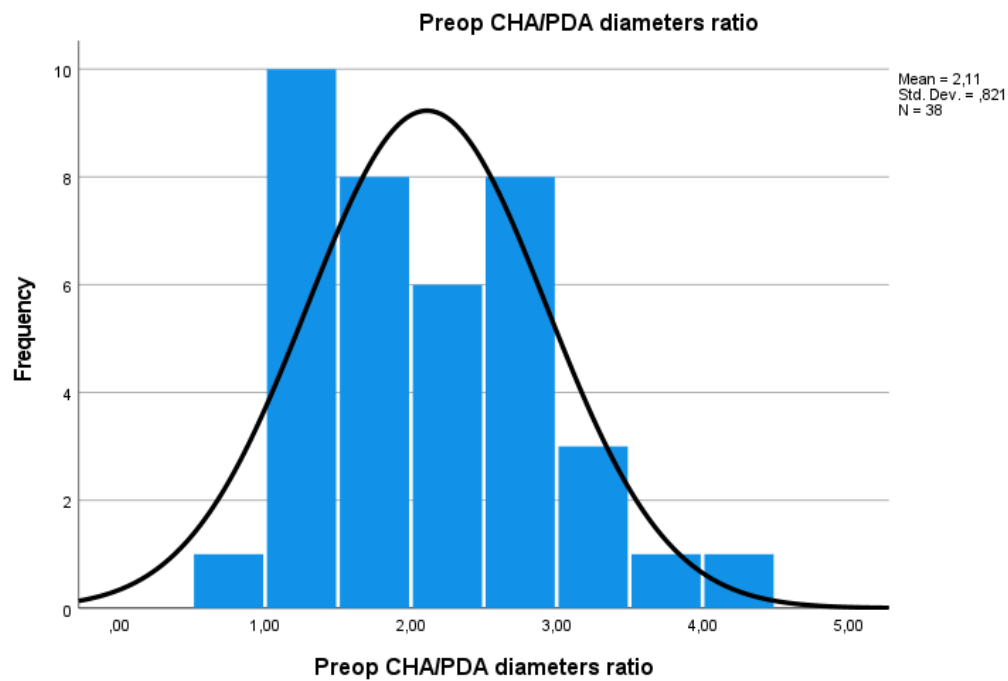
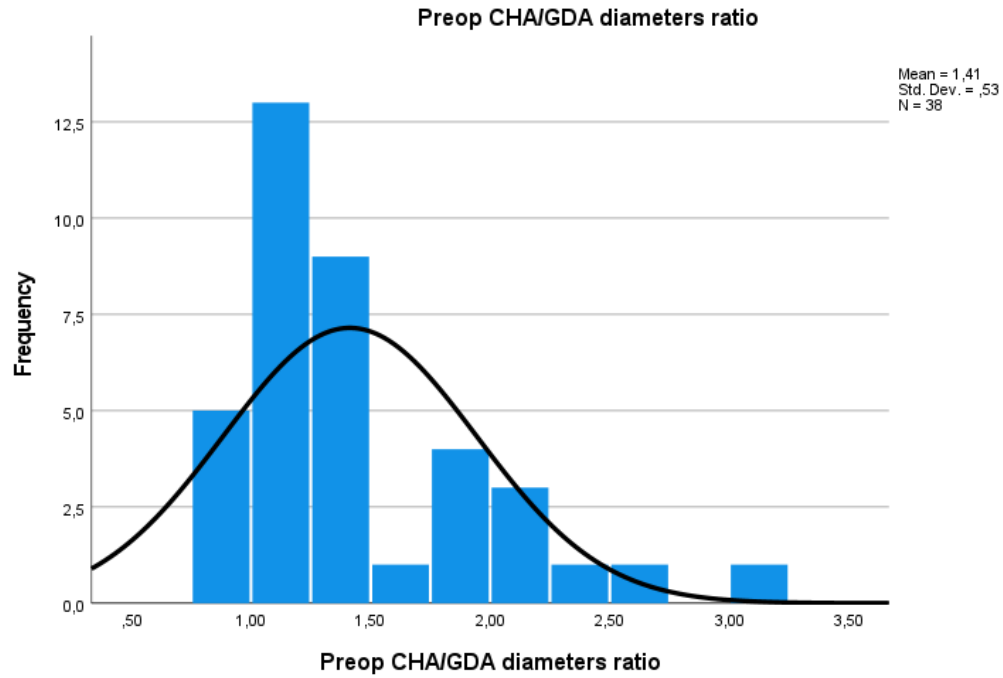
Mis sing	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	3
Mean	-21.26	3.72	552.50	953.86	212.52	661.41	342.10	992.37	317.32	521.18	493.55	141.10	861.46	551.00	021.26	89 .2324	.9795	-.0142	.5520	
Std. Deviation	19.339	1.2504 9	.8294	5.9816	4.7775	8.5300	4.8212	14.0754 4	14.5227 74	.7737	4.0057 5	.3040	0.3834	8.1325	0.2929	2.9307	3.5617	6.4960	1.5424	
Minimum	-66	1.82	1.10	2.00	1.20	.80	.83	.16	.91	.27	.40	.63	.98	.66	.80	-2.30	-.07	-1.61	-.74	
Maximum	0	6.67	5.76	6.30	3.91	3.08	4.45	25.01	90.20	5.13	18.84	2.24	3.08	1.38	2.08	2.25	2.29	1.30	1.82	
Perc entiles	25	-32.50	2.7000	1.9475	2.9000	1.9250	1.0691	1.3768	.7839	2.1703	.8394	1.2439	.9409	1.2137	.9359	1.0561	-.2625	.5800	-.2500	
50	-16.00	3.6500	2.3050	4.2000	2.5500	1.2609	1.9696	1.4808	4.1565	1.1105	2.3497	1.1023	1.4278	.9741	1.2381	.3450	.9500	-.1100	.5000	
75	-7.00	4.4225	2.9100	4.4625	3.1925	1.7870	2.6785	2.4414	6.6945	1.3036	3.5022	1.2500	1.6083	1.0447	1.3680	.8125	1.4425	.1500	.9100	

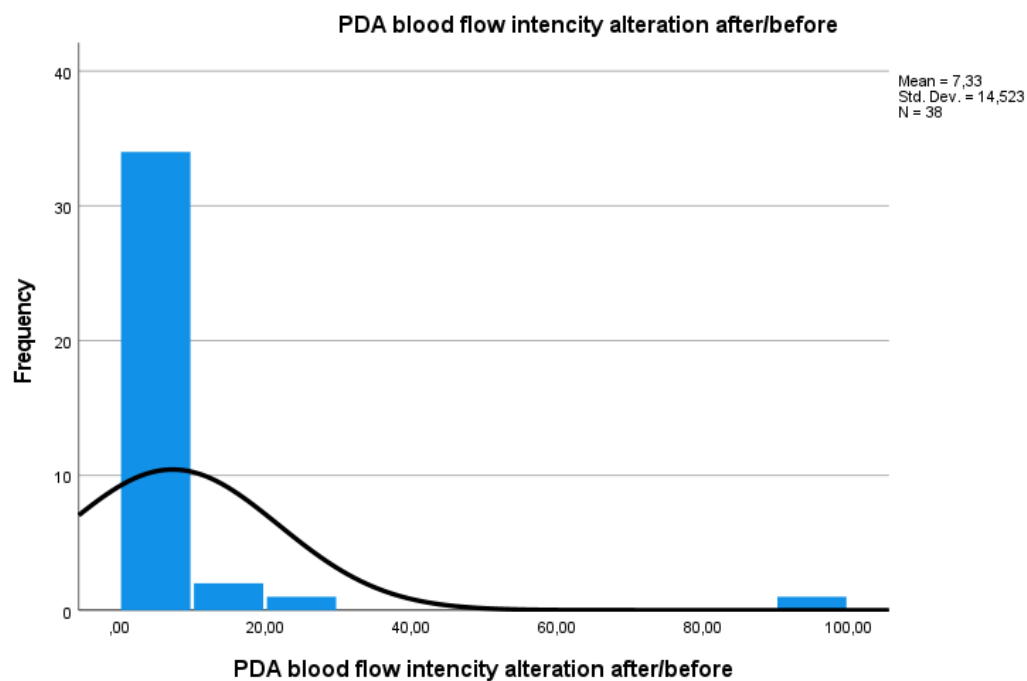
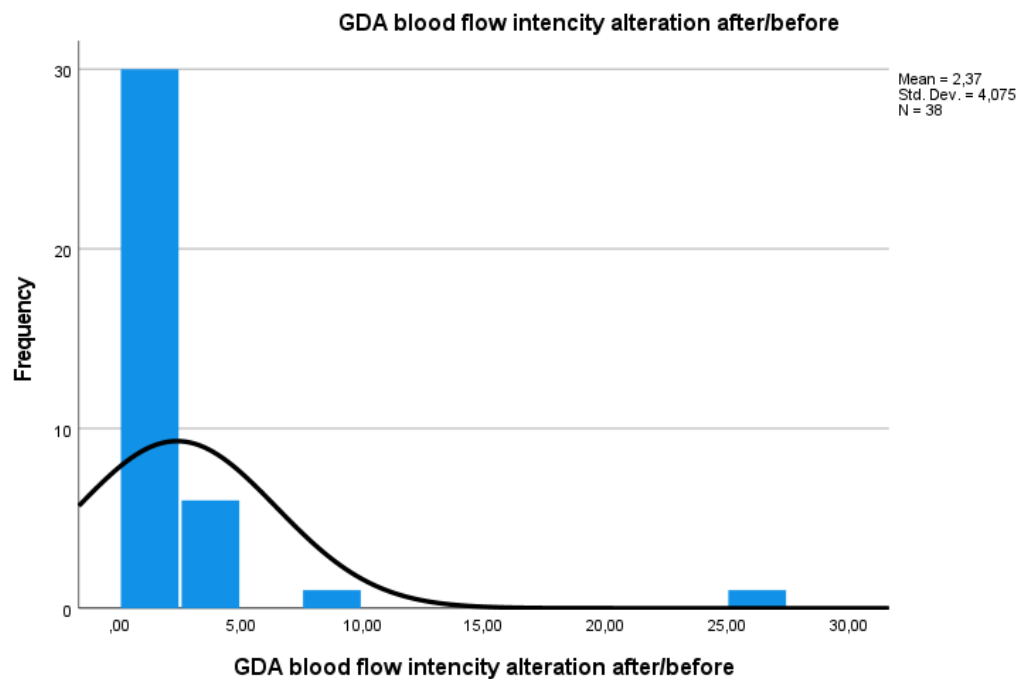
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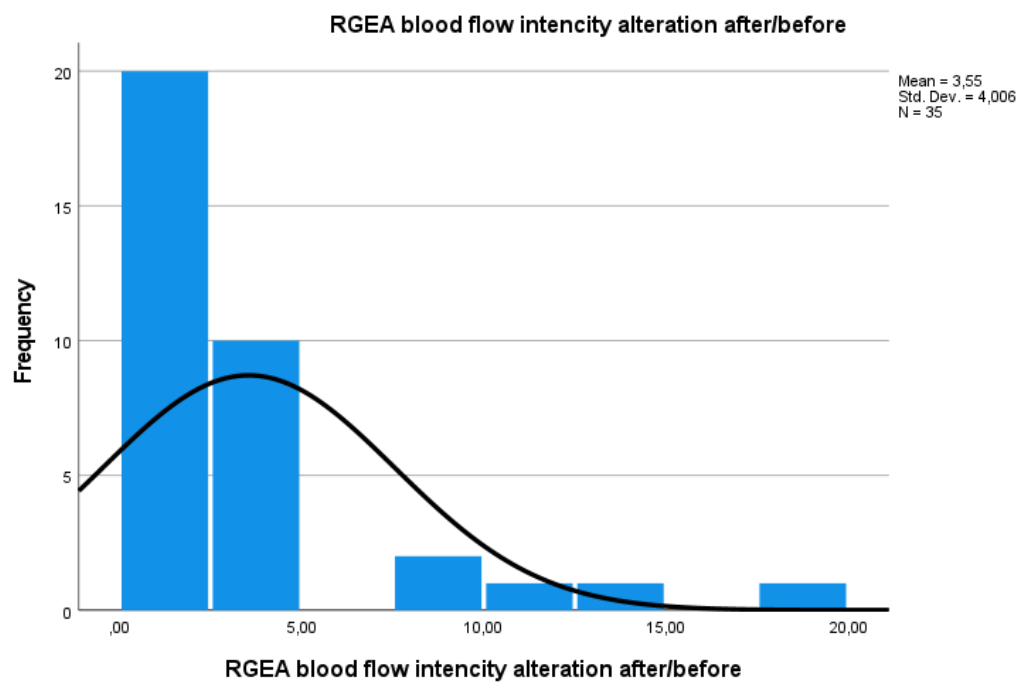
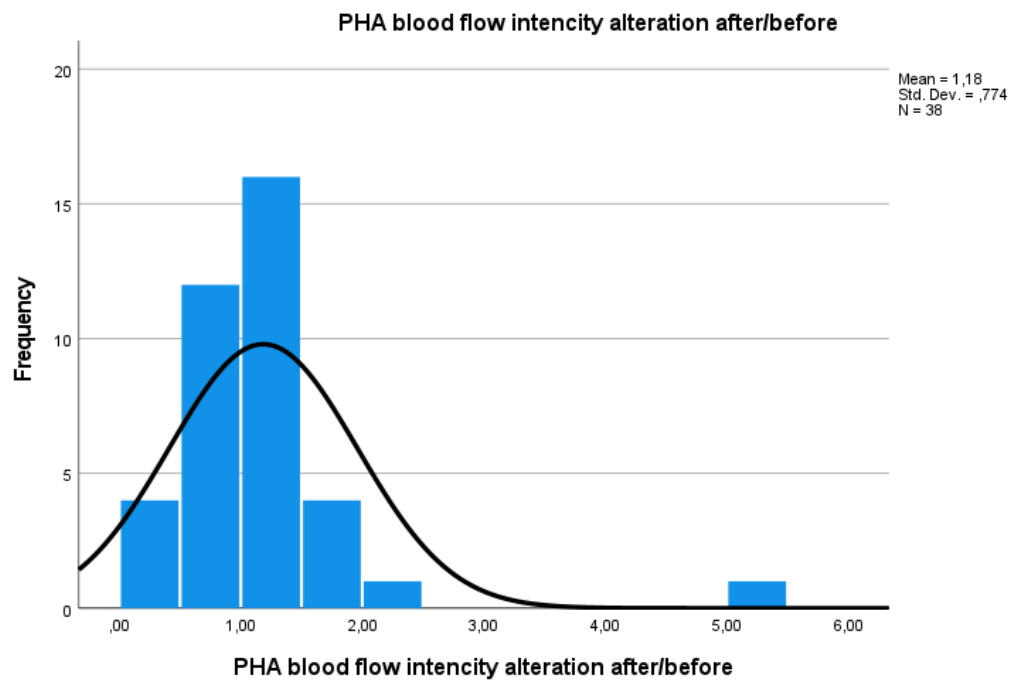


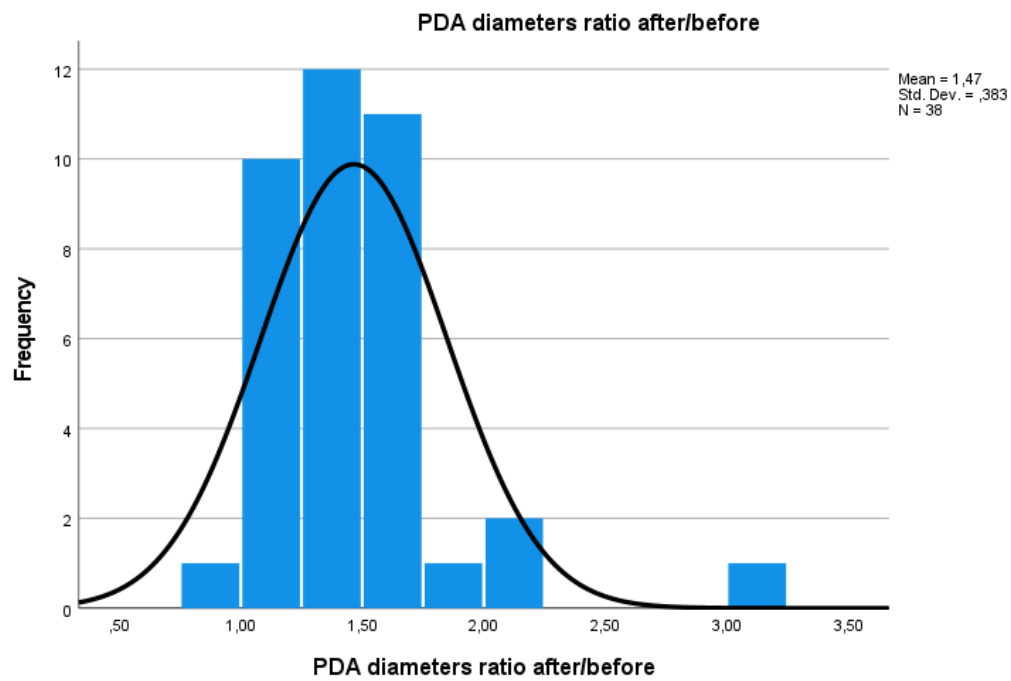
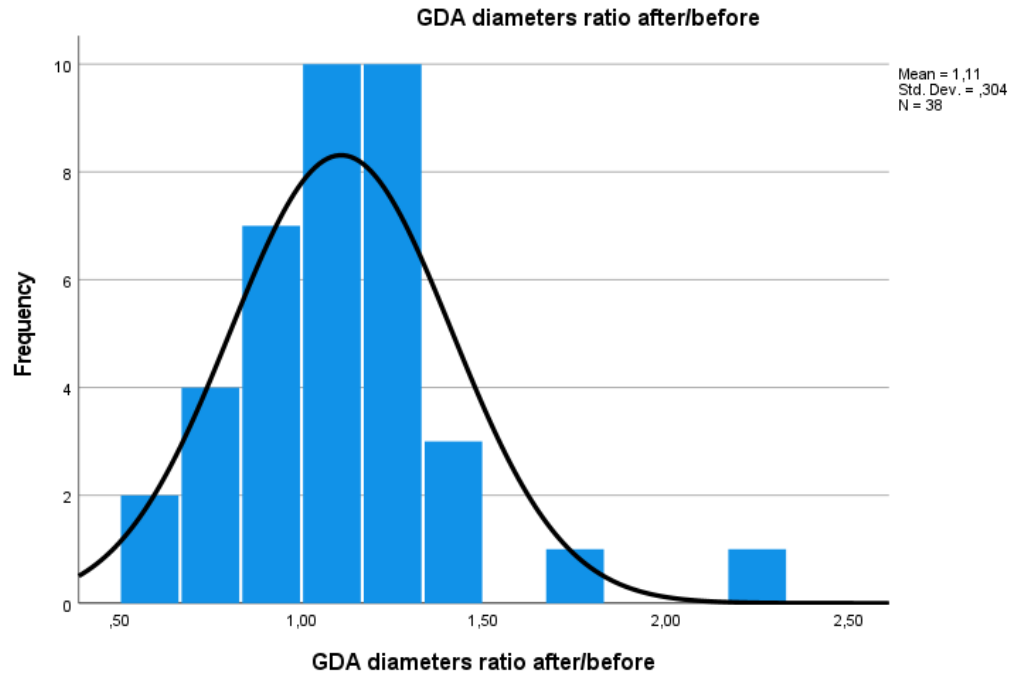


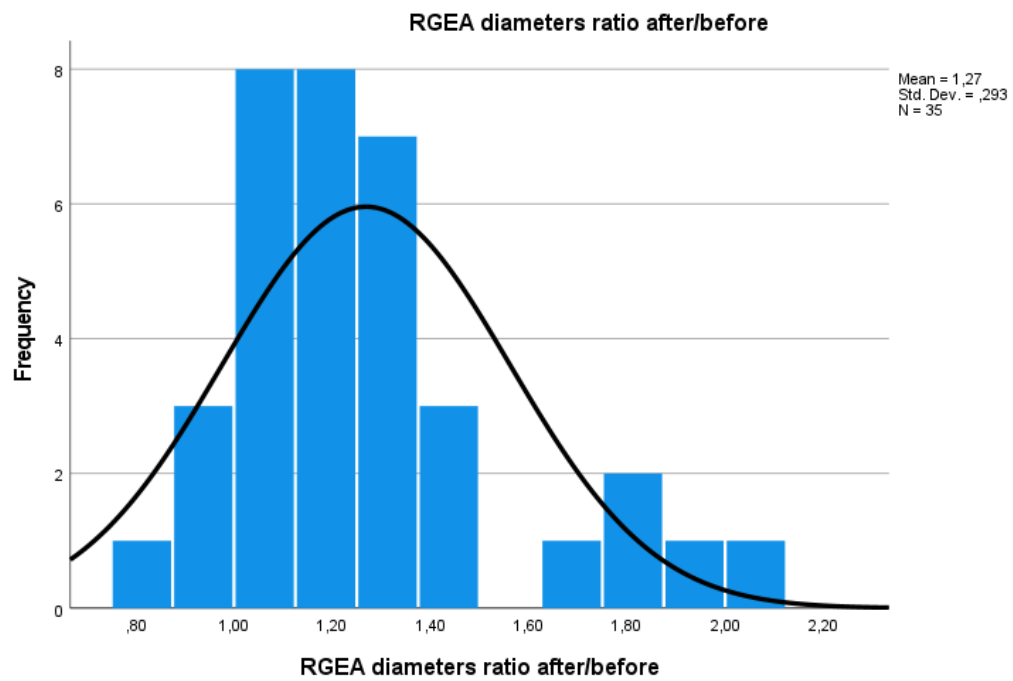
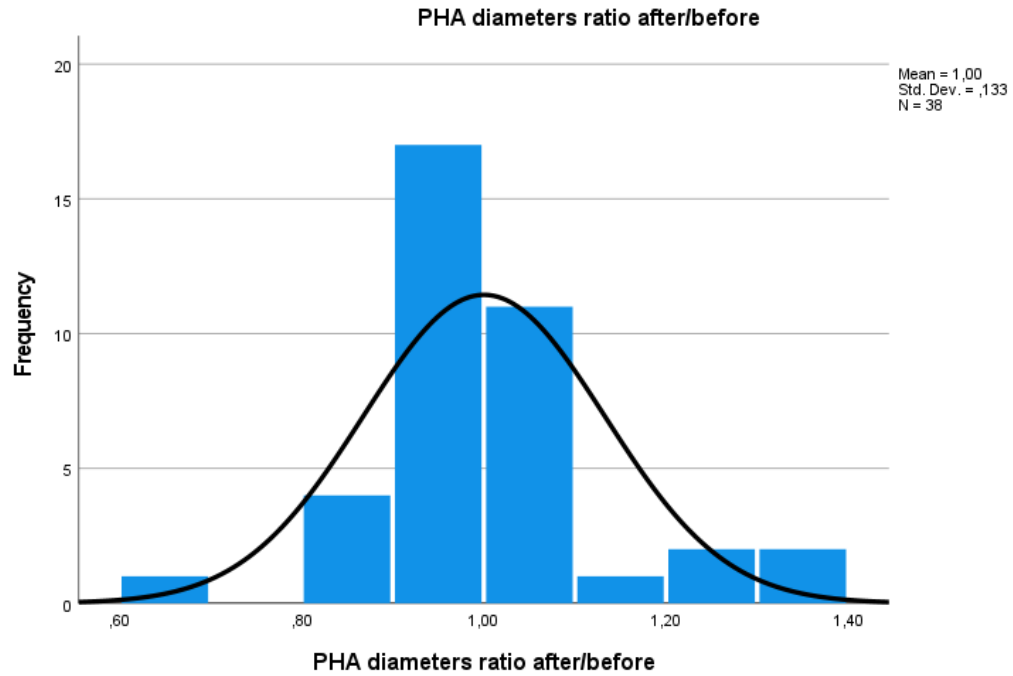


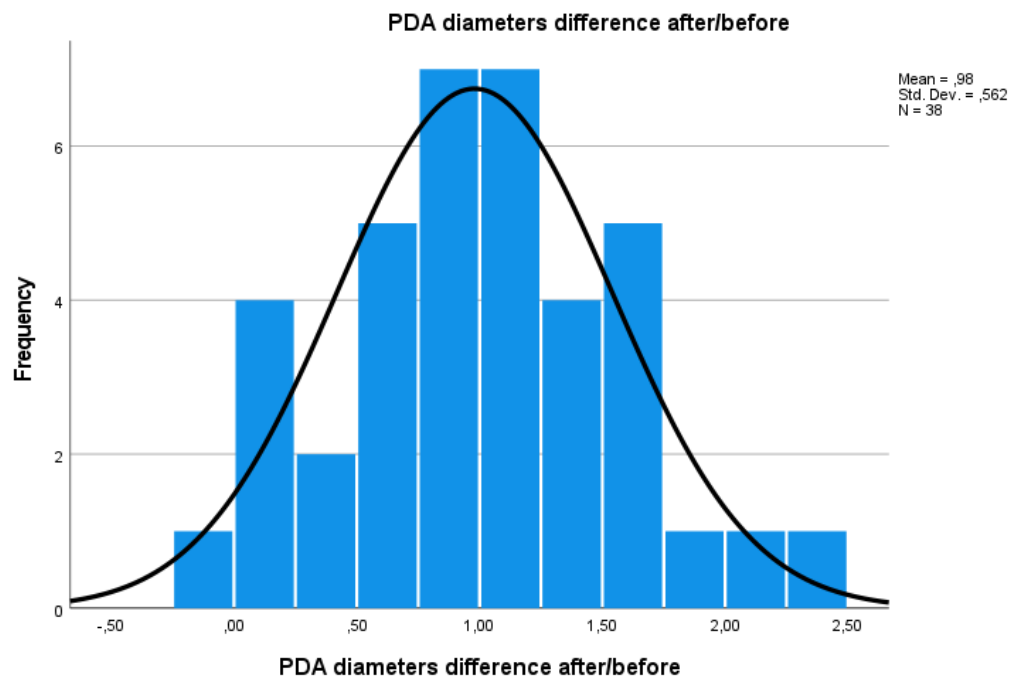
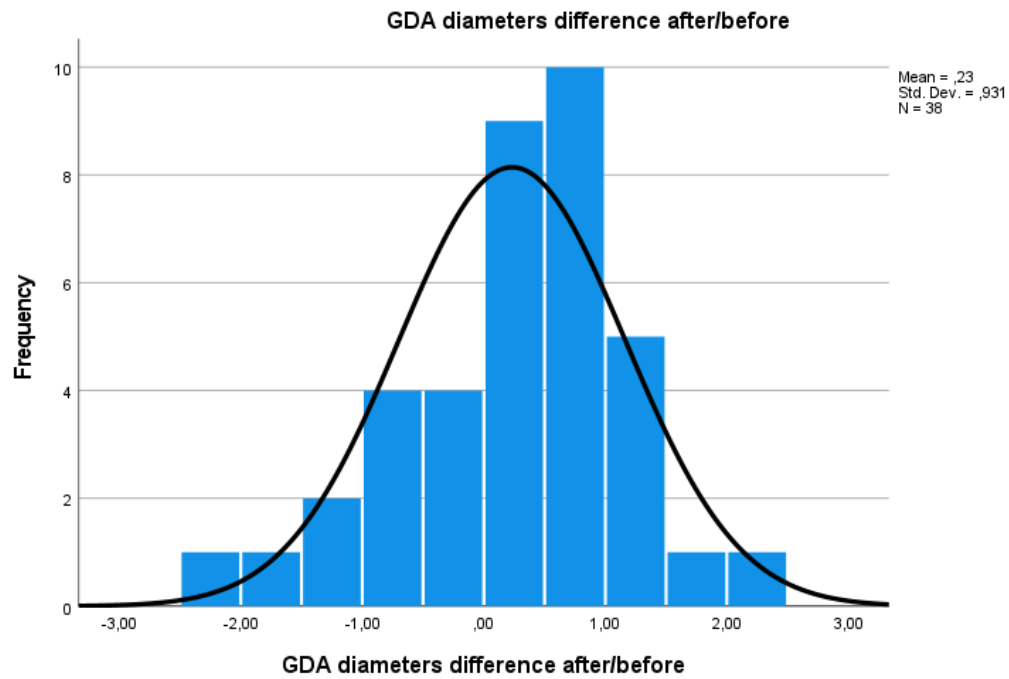


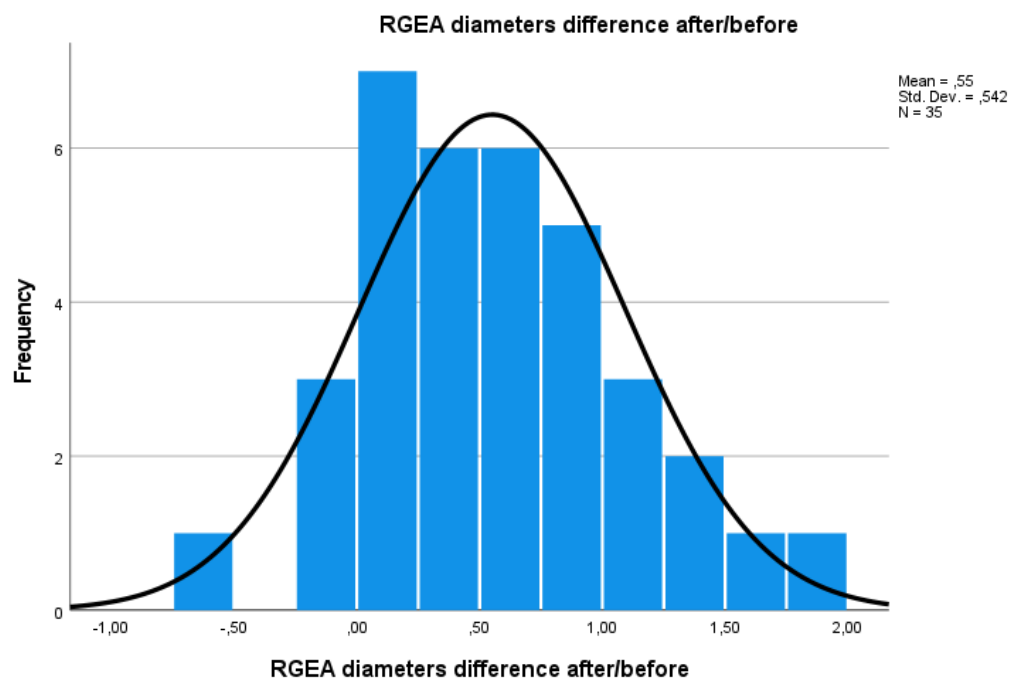
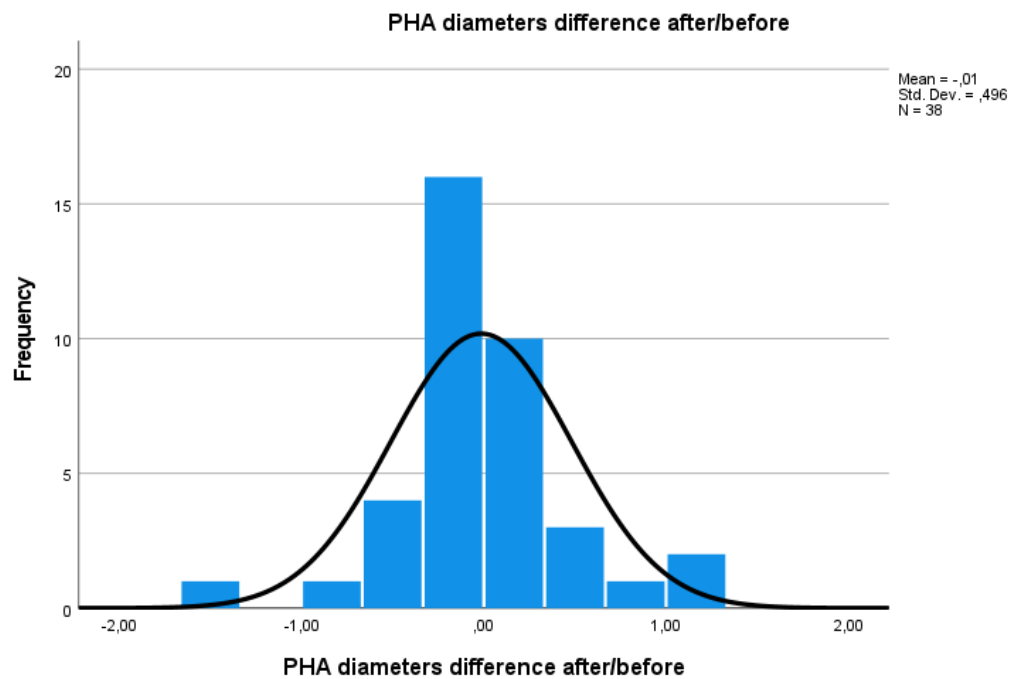












T-Test

Group Statistics					
	Puls preservation	N	Mean	Std. Deviation	Std. Error Mean
Preop CHA/GDA diameters ratio	no	4	1.2520	.50953	.25476
	yes	34	1.4324	.53653	.09201
Preop CHA/PDA diameters ratio	no	4	2.0719	.96106	.48053
	yes	34	2.1144	.81974	.14058

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Preop CHA/GDA diameters ratio	Equal variances assumed	.056	.814	-.639	36	.527	-.18036	.28244	-.75318	.39246
	Equal variances not assumed			-.666	3.828	.543	-.18036	.27087	-.94595	.58523
Preop CHA/PDA diameters ratio	Equal variances assumed	.403	.529	-.097	36	.924	-.04253	.44002	-.93493	.84987
	Equal variances not assumed			-.085	3.533	.937	-.04253	.50067	-1.50814	1.42308

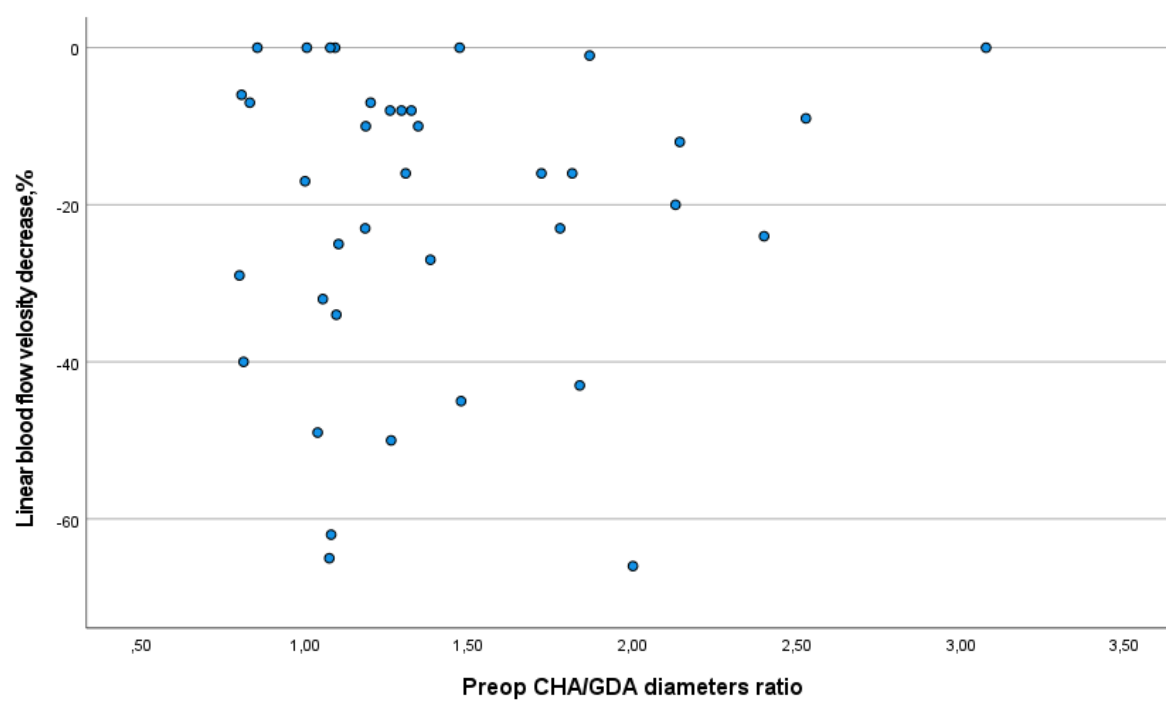
NPar Tests

Mann-Whitney Test

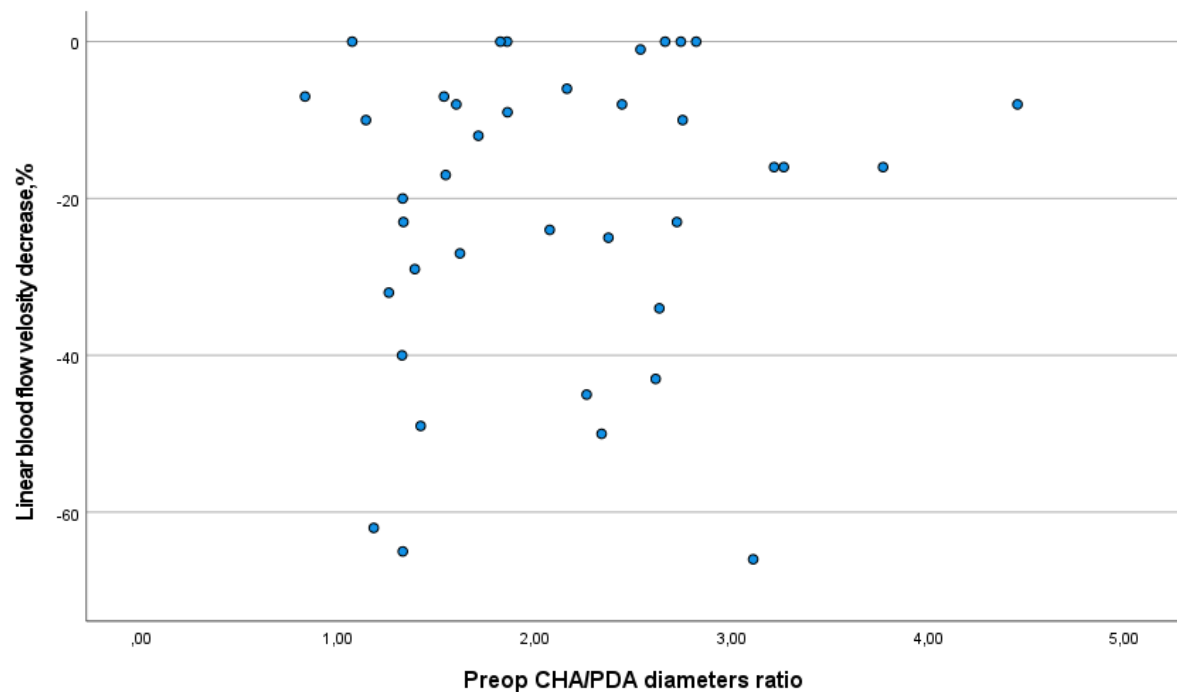
Ranks				
	Puls preservation	N	Mean Rank	Sum of Ranks
Preop CHA/GDA diameters ratio	no	4	15.00	60.00
	yes	34	20.03	681.00
	Total	38		
Preop CHA/PDA diameters ratio	no	4	18.75	75.00
	yes	34	19.59	666.00
	Total	38		

	Test Statistics	
	Preop CHA/GDA	Preop CHA/PDA
	diameters ratio	diameters ratio
Mann-Whitney U	50.000	65.000
Wilcoxon W	60.000	75.000
Z	-.856	-.143
Asymp. Sig. (2-tailed)	.392	.887
Exact Sig. [2*(1-tailed Sig.)]	.420	.909

Graph



Graph



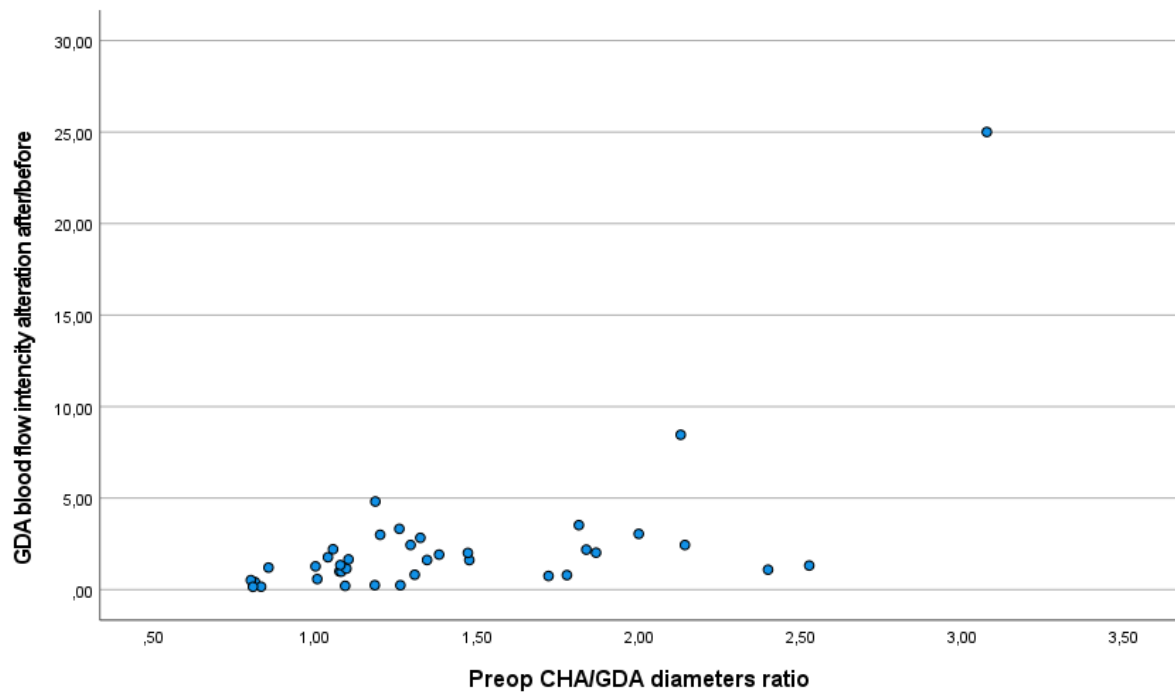
Correlations

Correlations			
		Preop CHA/GDA diameters ratio	Preop CHA/PDA diameters ratio
Preop CHA/GDA diameters ratio	Pearson Correlation	1	.142
	Sig. (2-tailed)		.395
	N	38	38
Preop CHA/PDA diameters ratio	Pearson Correlation	.142	1
	Sig. (2-tailed)	.395	
	N	38	38

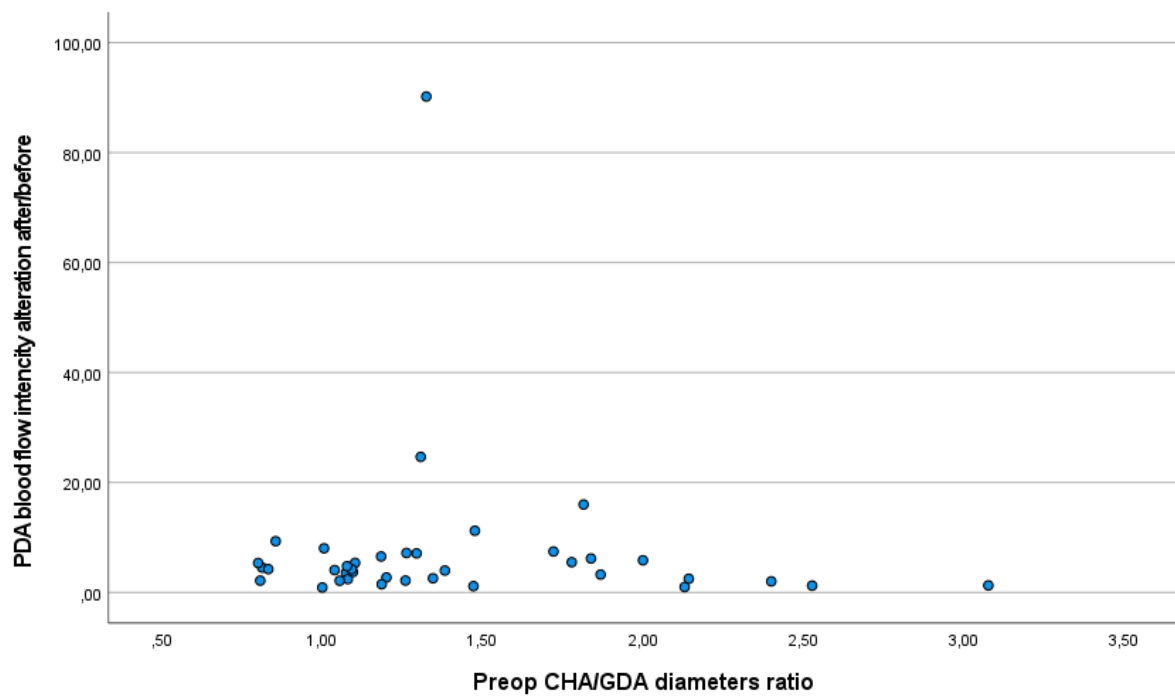
Nonparametric Correlations

Correlations			
		Preop CHA/GDA diameters ratio	Preop CHA/PDA diameters ratio
Spearman's rho	Preop CHA/GDA diameters ratio	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	38
	Preop CHA/PDA diameters ratio	Correlation Coefficient	.283
		Sig. (2-tailed)	.085
		N	38

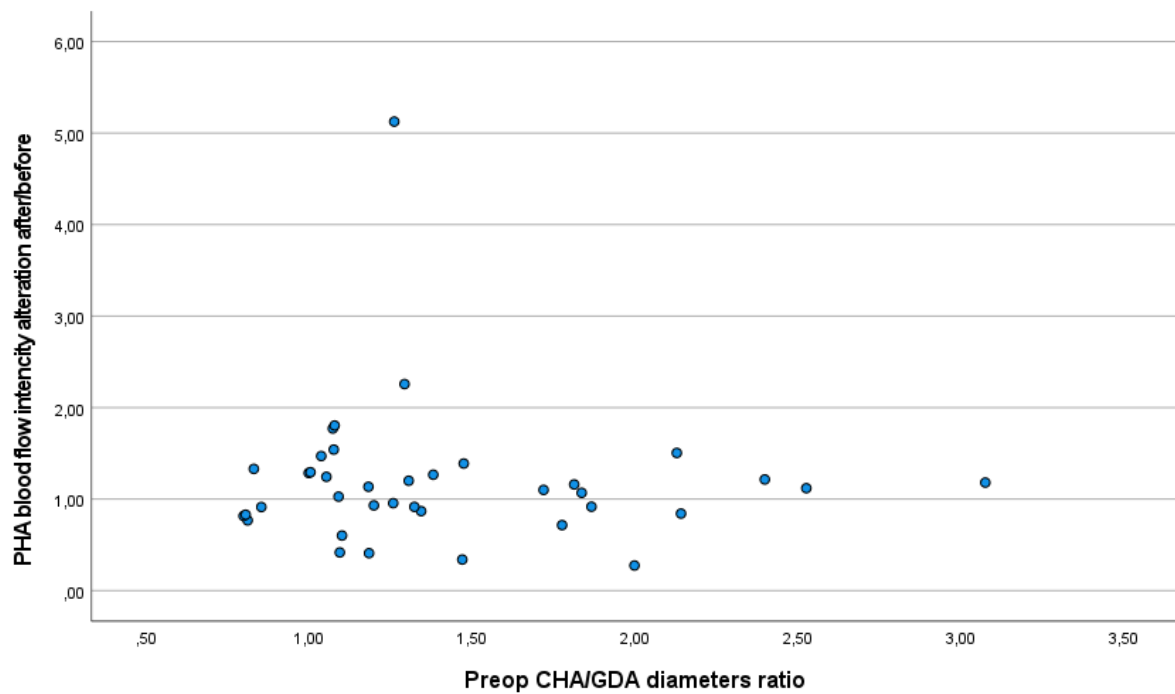
Graph



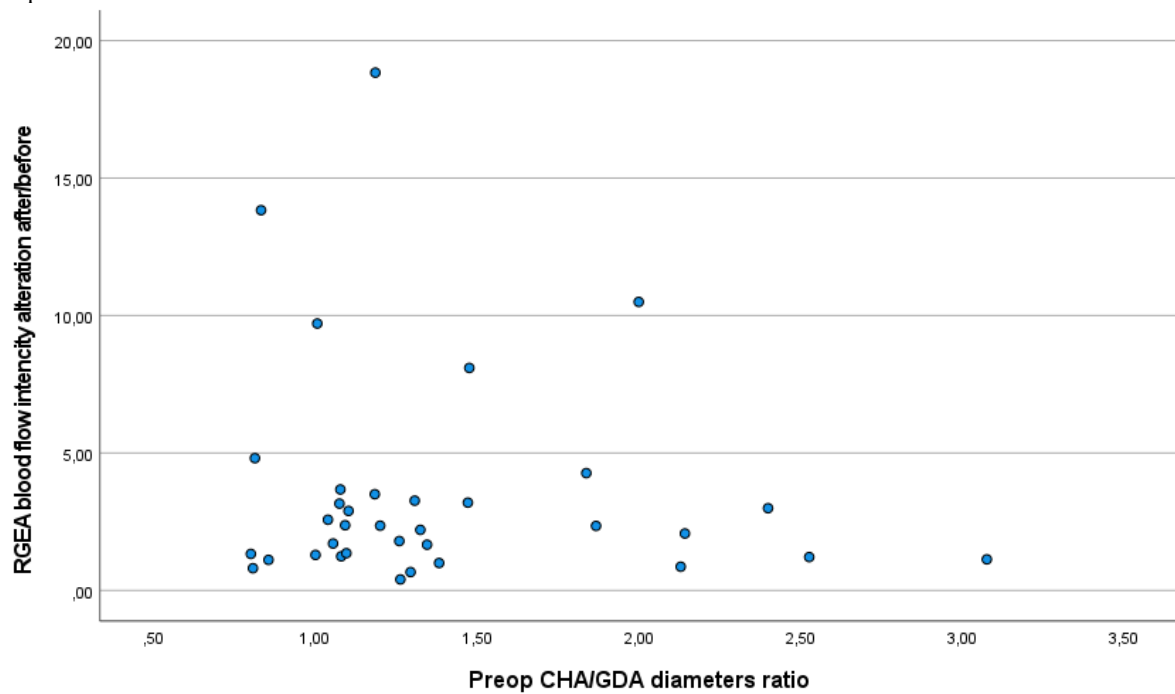
Graph



Graph



Graph



Correlations

Correlations

Preop CHA/GDA diameters ratio	GDA blood flow intensity alteration after/before	PDA blood flow intensity alteration after/before	PHA blood flow intensity alteration after/before	RGEA blood flow intensity alteration after/before
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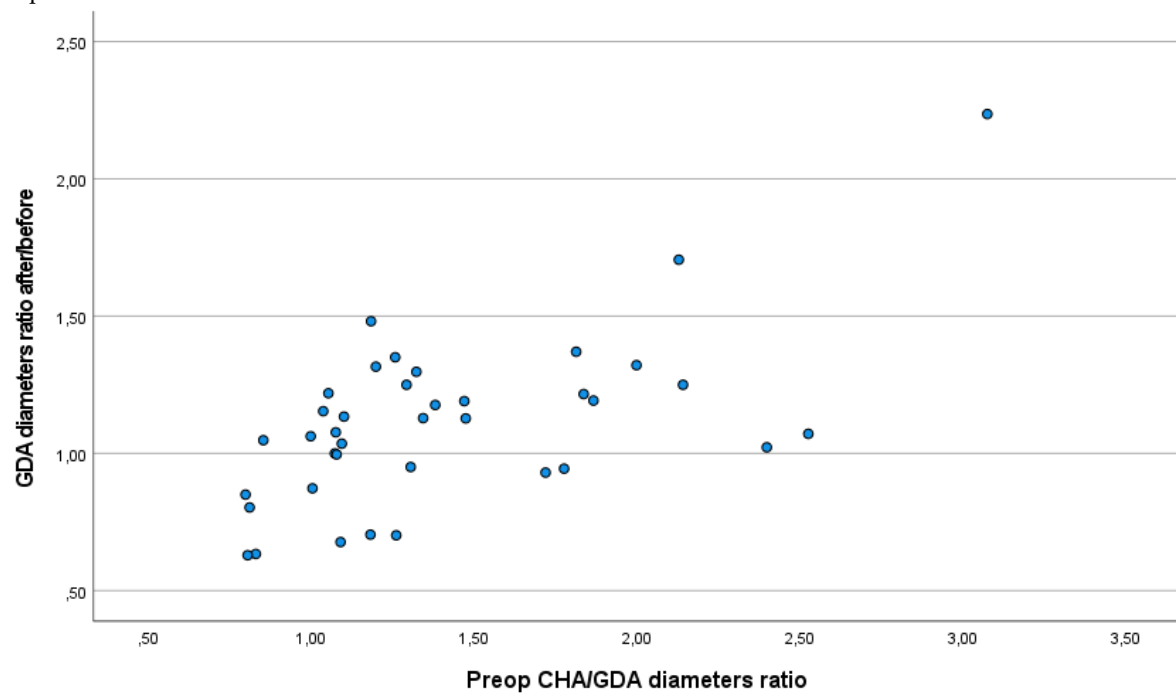
Preop diameters ratio	CHA/GDA	Pearson	1	.612	-.061	-.061	-.117
		Correlation					
		Sig. (2-tailed)		.000	.716	.716	.504
		N	38	38	38	38	35
GDA blood flow intensity alteration after/before		Pearson	.612	1	-.042	-.057	-.057
		Correlation					
		Sig. (2-tailed)	.000		.800	.735	.744
		N	38	38	38	38	35
PDA blood flow intensity alteration after/before		Pearson	-.061	-.042	1	-.015	-.033
		Correlation					
		Sig. (2-tailed)	.716	.800		.926	.851
		N	38	38	38	38	35
PHA blood flow intensity alteration after/before		Pearson	-.061	-.057	-.015	1	-.246
		Correlation					
		Sig. (2-tailed)	.716	.735	.926		.155
		N	38	38	38	38	35
RGEA blood flow intensity alteration after/before		Pearson	-.117	-.057	-.033	-.246	1
		Correlation					
		Sig. (2-tailed)	.504	.744	.851	.155	
		N	35	35	35	35	35

Nonparametric Correlations

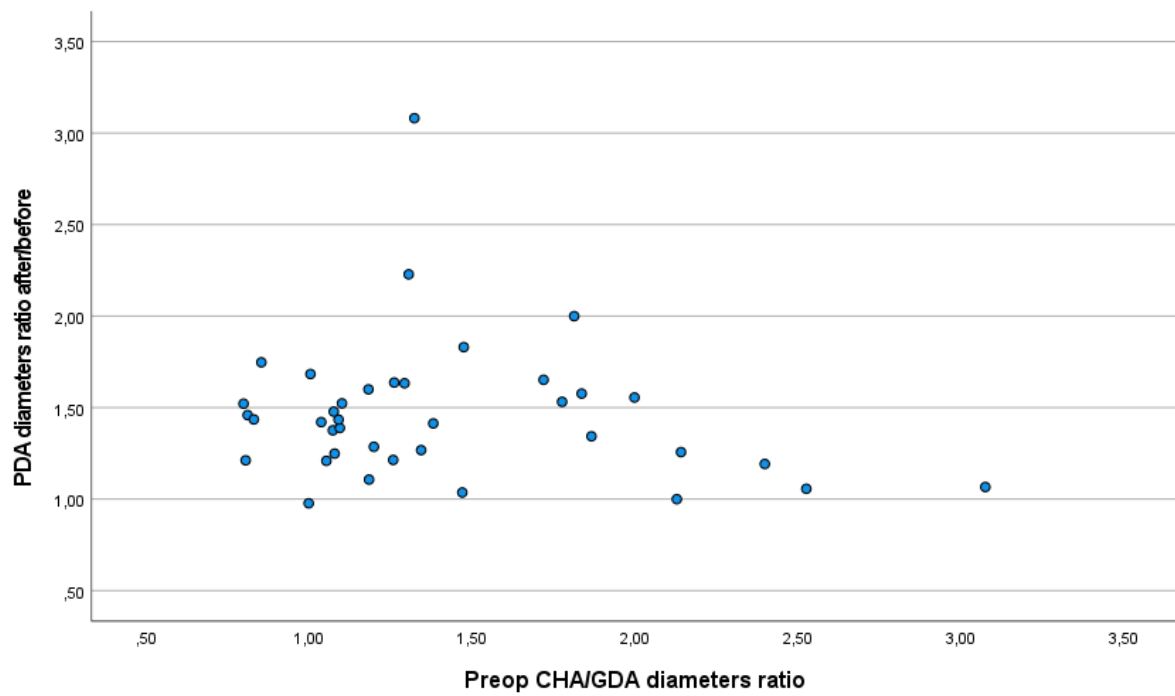
				Correlations				
				Preop CHA/GD A diameters ratio	GDA blood flow intensity alteration after/befo re	PDA blood flow intensity alteration after/befo re	PHA blood flow intensity alteration after/befo re	RGEA blood flow intensity alteration after/befor e
Spearman's rho	Preop diameters ratio	Correlation	1.000		.535	-.094	-.068	-.066
		Coefficient						
		Sig. (2-tailed)	.		.001	.574	.686	.706
		N	38		38	38	38	35
	GDA blood flow intensity alteration after/before	Correlation	.535		1.000	-.246	-.109	-.057
		Coefficient						
		Sig. (2-tailed)	.001		.	.137	.515	.746
		N	38		38	38	38	35
	PDA blood flow intensity alteration after/before	Correlation	-.094		-.246	1.000	.072	.268
		Coefficient						
		Sig. (2-tailed)	.574		.137	.	.669	.120
		N	38		38	38	38	35

PHA blood flow intensity alteration after/before	Correlation	-.068	-.109	.072	1.000	-.198
	Coefficient					
	Sig. (2-tailed)	.686	.515	.669	.	.254
	N	38	38	38	38	35
RGEA blood flow intensity alteration after/before	Correlation	-.066	-.057	.268	-.198	1.000
	Coefficient					
	Sig. (2-tailed)	.706	.746	.120	.254	.
	N	35	35	35	35	35

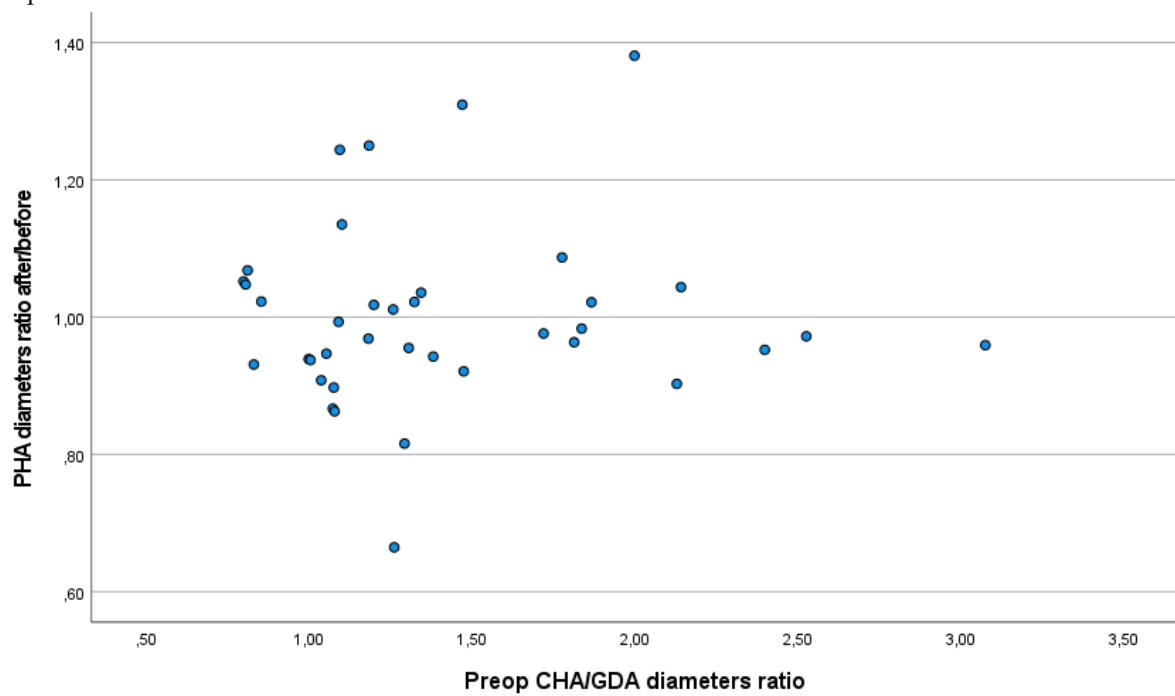
Graph



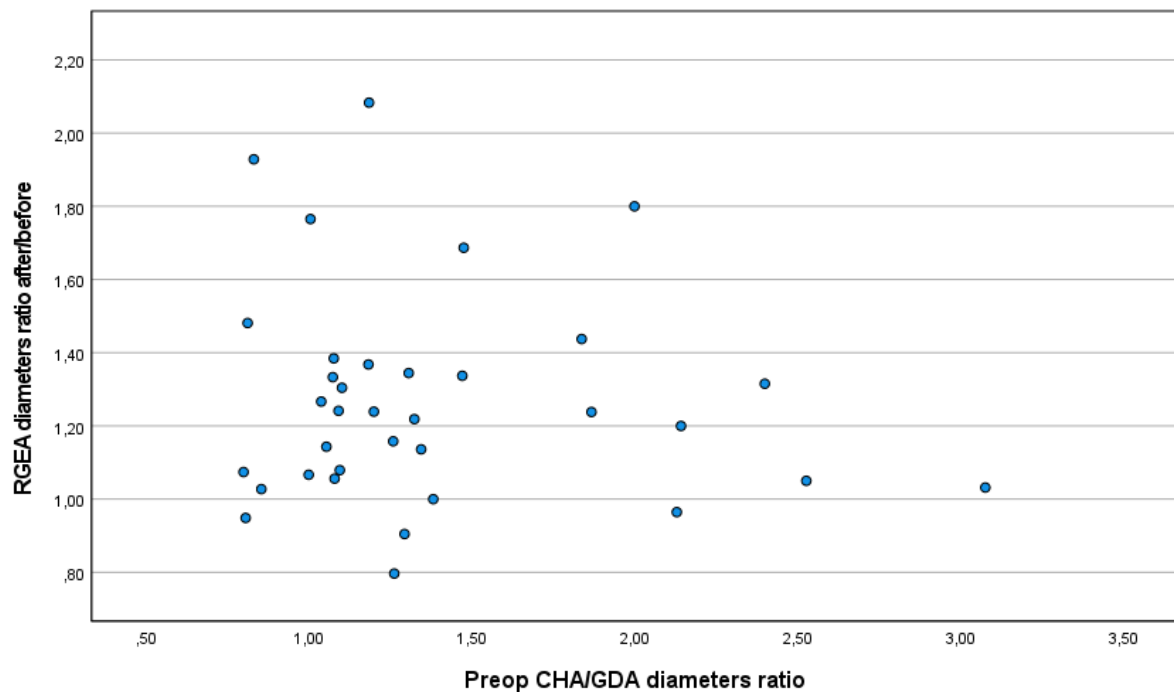
Graph



Graph



Graph



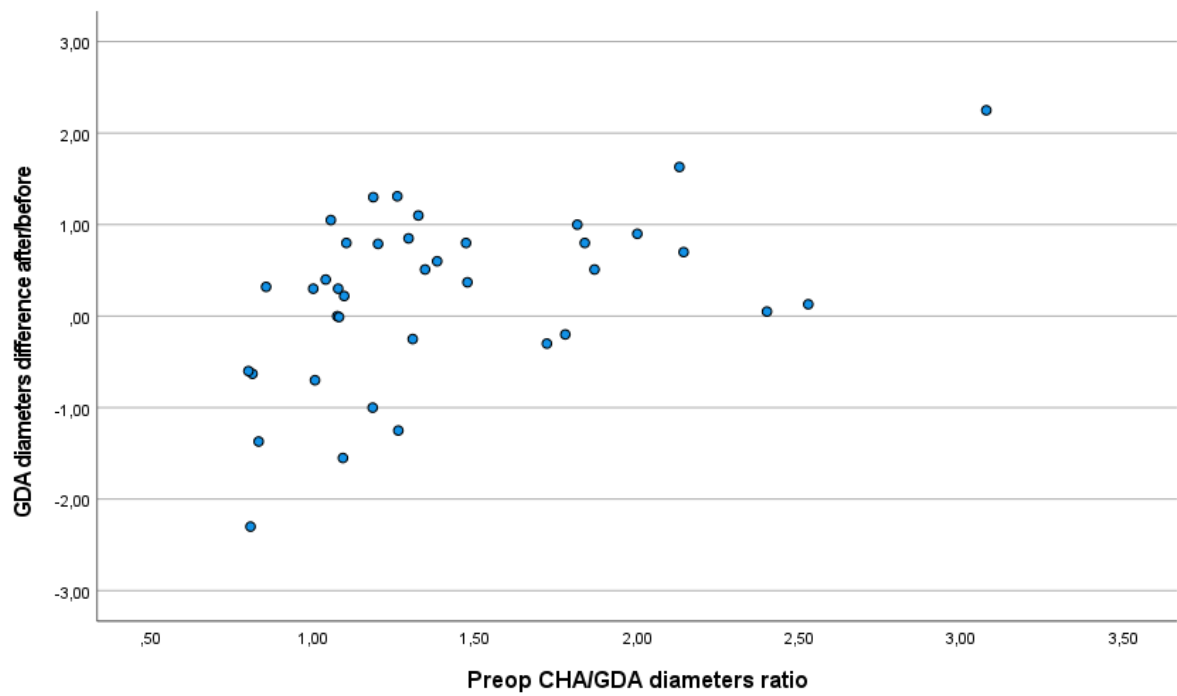
Correlations

		Correlations				
		Preop CHA/GDA diameters ratio	GDA diameters ratio after/before	PDA diameters ratio after/before	PHA diameters ratio after/before	RGEA diameters ratio after/before
Preop diameters ratio	Pearson	1	.620	-.179	.047	-.109
	Correlation					
	Sig. (2-tailed)		.000	.283	.778	.535
	N	38	38	38	38	35
GDA diameters ratio after/before	Pearson	.620	1	-.159	.152	-.073
	Correlation					
	Sig. (2-tailed)	.000		.341	.361	.678
	N	38	38	38	38	35
PDA diameters ratio after/before	Pearson	-.179	-.159	1	-.107	.111
	Correlation					
	Sig. (2-tailed)	.283	.341		.522	.524
	N	38	38	38	38	35
PHA diameters ratio after/before	Pearson	.047	.152	-.107	1	.403
	Correlation					
	Sig. (2-tailed)	.778	.361	.522		.016
	N	38	38	38	38	35
RGEA diameters ratio after/before	Pearson	-.109	-.073	.111	.403	1
	Correlation					
	Sig. (2-tailed)	.535	.678	.524	.016	
	N	35	35	35	35	35

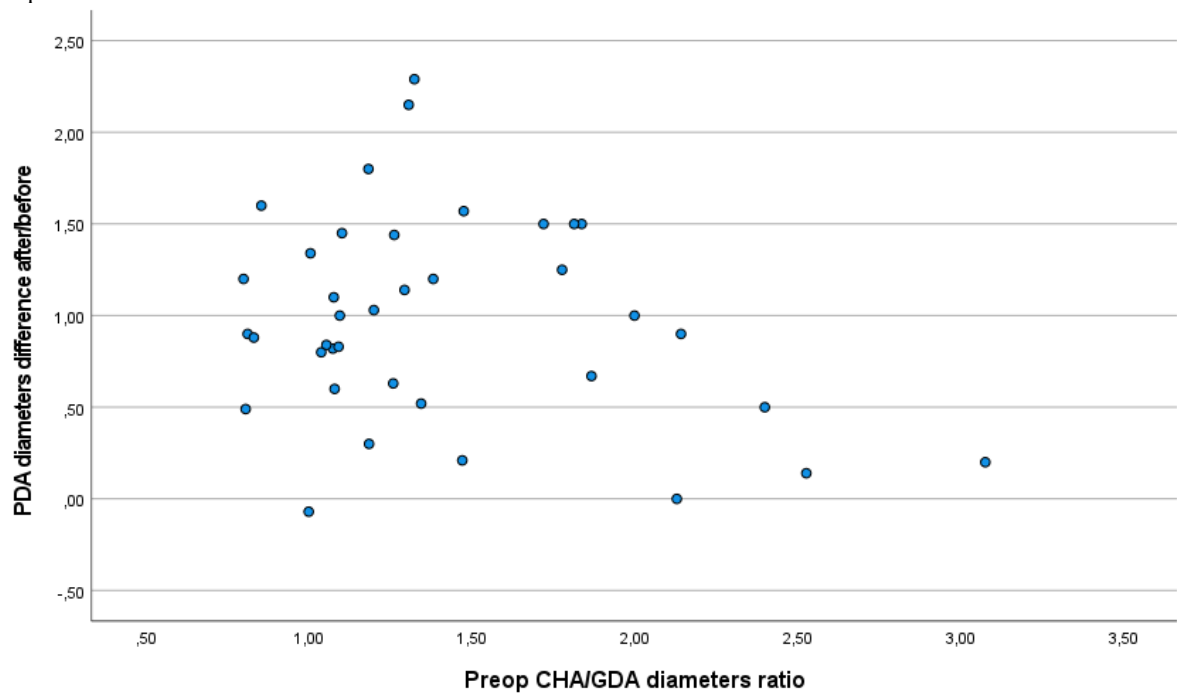
Nonparametric Correlations

				Correlations				
				Preop CHA/GD A diameters ratio	GDA diameters ratio after/befo re	PDA diameters ratio after/befo re	PHA diameters ratio after/befo re	RGEA diameters ratio after/befor e
Spearman's rho	Preop CHA/GD diameters ratio		Correlation	1.000	.534	-.094	.068	-.066
			Coefficient					
			Sig. (2-tailed)	.	.001	.574	.686	.706
			N	38	38	38	38	35
	GDA diameters ratio after/before		Correlation	.534	1.000	-.244	.106	-.059
			Coefficient					
			Sig. (2-tailed)	.001	.	.140	.527	.737
			N	38	38	38	38	35
	PDA diameters ratio after/before		Correlation	-.094	-.244	1.000	-.072	.268
			Coefficient					
			Sig. (2-tailed)	.574	.140	.	.669	.120
			N	38	38	38	38	35
	PHA diameters ratio after/before		Correlation	.068	.106	-.072	1.000	.198
			Coefficient					
			Sig. (2-tailed)	.686	.527	.669	.	.254
			N	38	38	38	38	35
	RGEA diameters ratio after/before		Correlation	-.066	-.059	.268	.198	1.000
			Coefficient					
			Sig. (2-tailed)	.706	.737	.120	.254	.
			N	35	35	35	35	35

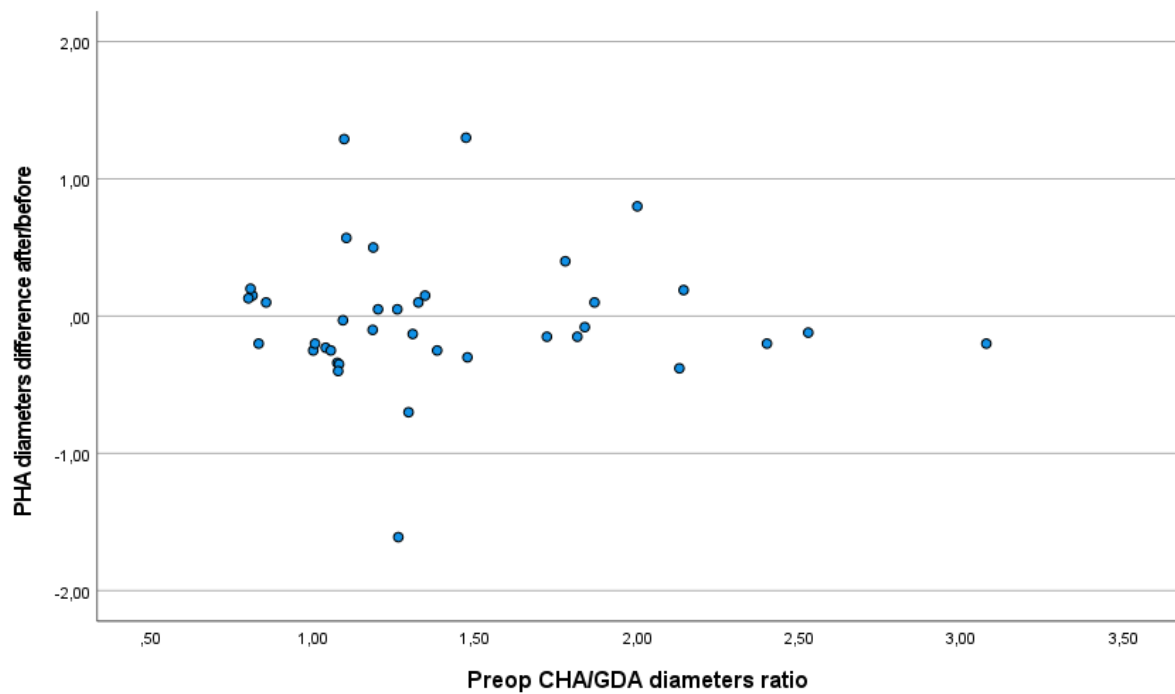
Graph



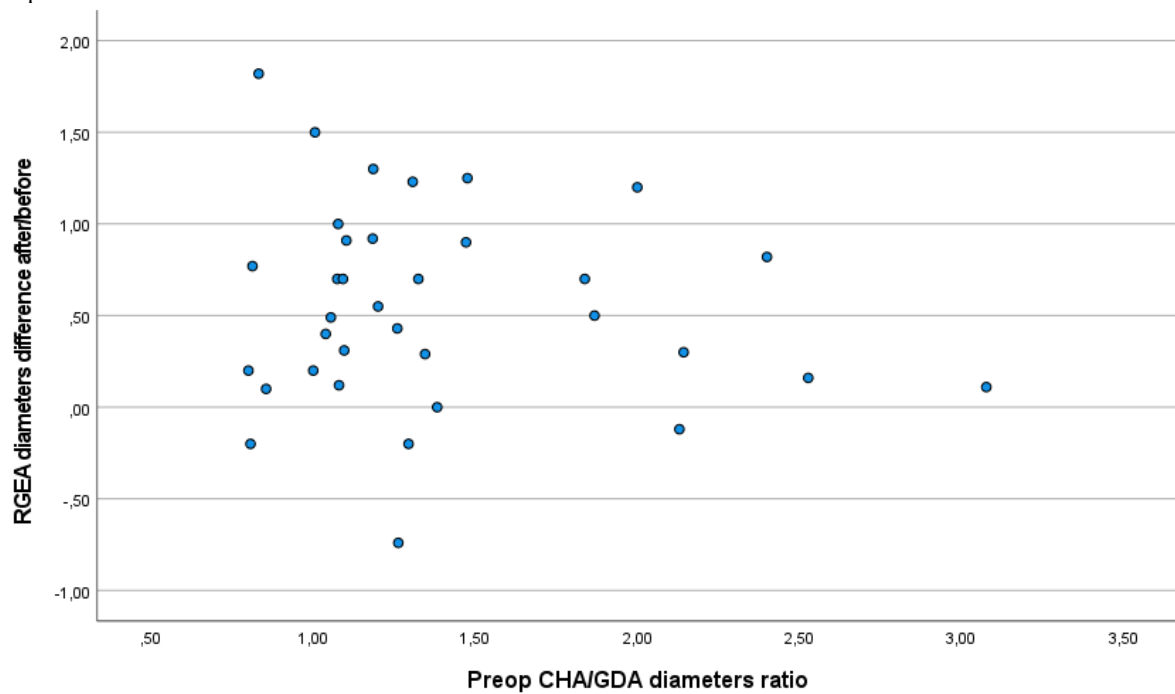
Graph



Graph



Graph



Correlations

Correlations						
			Preop CHA/GDA diameters ratio	GDA diameters difference after/before	PDA diameters difference after/before	PHA diameters difference after/before
Preop diameters ratio	CHA/GDA	Pearson Correlation	1	.494	-.259	-.008
						RGEA diameters difference after/before
						-.134

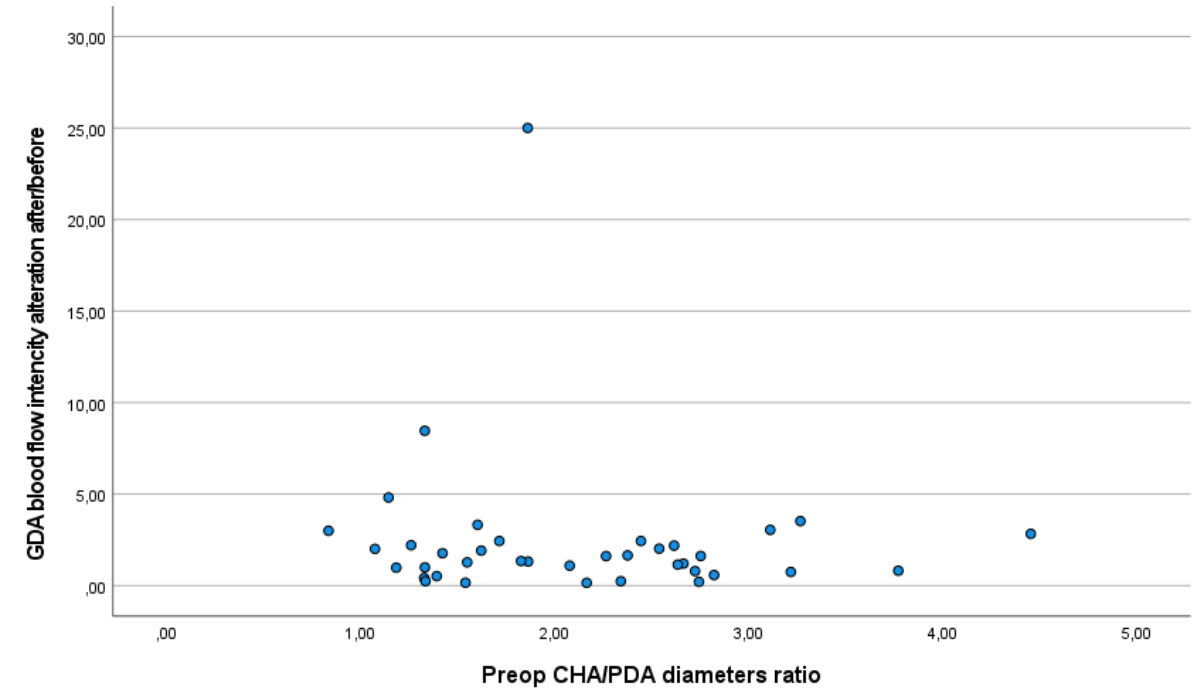
		Sig. (2-tailed)		.002	.117	.960	.444
		N	38	38	38	38	35
GDA	diameters	Pearson	.494	1	-.187	.176	-.055
difference		Correlation					
after/before		Sig. (2-tailed)	.002		.261	.290	.752
		N	38	38	38	38	35
PDA	diameters	Pearson	-.259	-.187	1	-.126	.241
difference		Correlation					
after/before		Sig. (2-tailed)	.117	.261		.450	.163
		N	38	38	38	38	35
PHA	diameters	Pearson	-.008	.176	-.126	1	.349
difference		Correlation					
after/before		Sig. (2-tailed)	.960	.290	.450		.040
		N	38	38	38	38	35
RGEA	diameters	Pearson	-.134	-.055	.241	.349	1
difference		Correlation					
after/before		Sig. (2-tailed)	.444	.752	.163	.040	
		N	35	35	35	35	35

Nonparametric Correlations

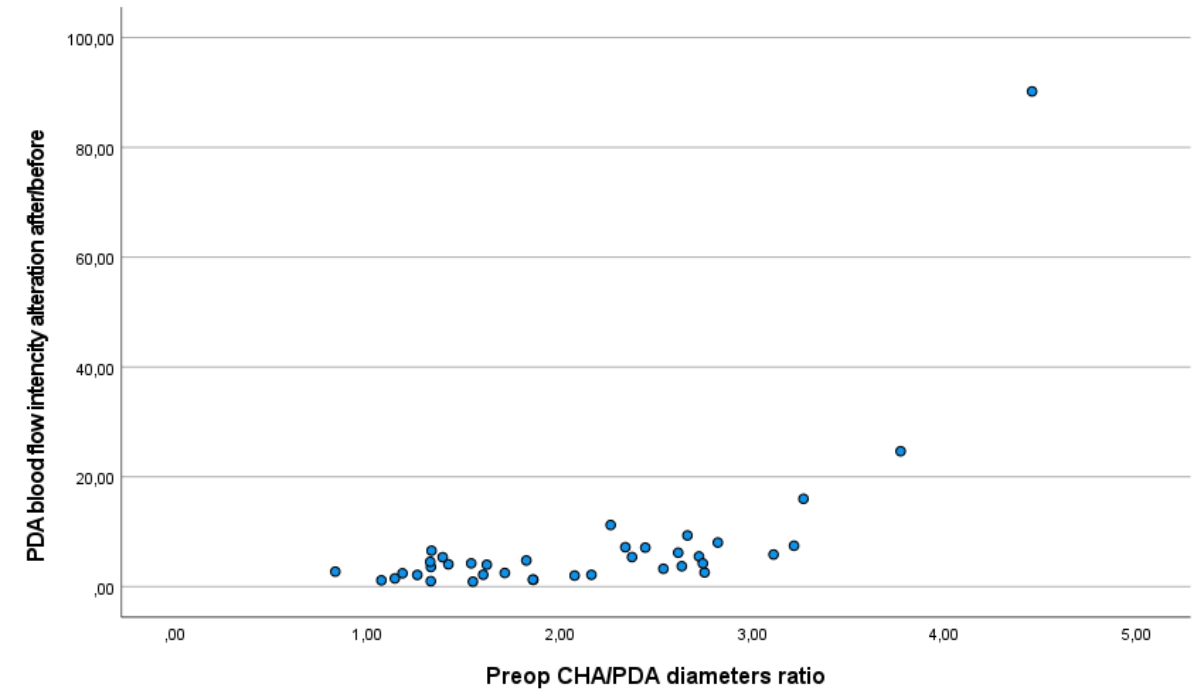
				Correlations				
				Preop CHA/GD A diameters ratio	GDA diameters difference after/befo re	PDA diameters difference after/befo re	PHA diameters difference after/befo re	RGEA diameters difference after/befor e
Spearman's rho	Preop CHA/GDA diameters ratio	Correlation	1.000		.474	-.068	.026	-.061
		Coefficient						
		Sig. (2-tailed)	.	.003	.686	.878	.726	
		N	38	38	38	38	35	
	GDA diameters difference after/before	Correlation	.474	1.000	-.166	.057	-.095	
		Coefficient						
		Sig. (2-tailed)	.003	.	.318	.732	.587	
		N	38	38	38	38	35	
	PDA diameters difference after/before	Correlation	-.068	-.166	1.000	-.002	.255	
		Coefficient						
		Sig. (2-tailed)	.686	.318	.	.990	.139	
		N	38	38	38	38	35	
	PHA diameters difference after/before	Correlation	.026	.057	-.002	1.000	.235	
		Coefficient						
		Sig. (2-tailed)	.878	.732	.990	.	.174	
		N	38	38	38	38	35	

RGEA	diameters	Correlation	-.061	-.095	.255	.235	1.000
difference		Coefficient					
after/before		Sig. (2-tailed)	.726	.587	.139	.174	.
		N	35	35	35	35	35

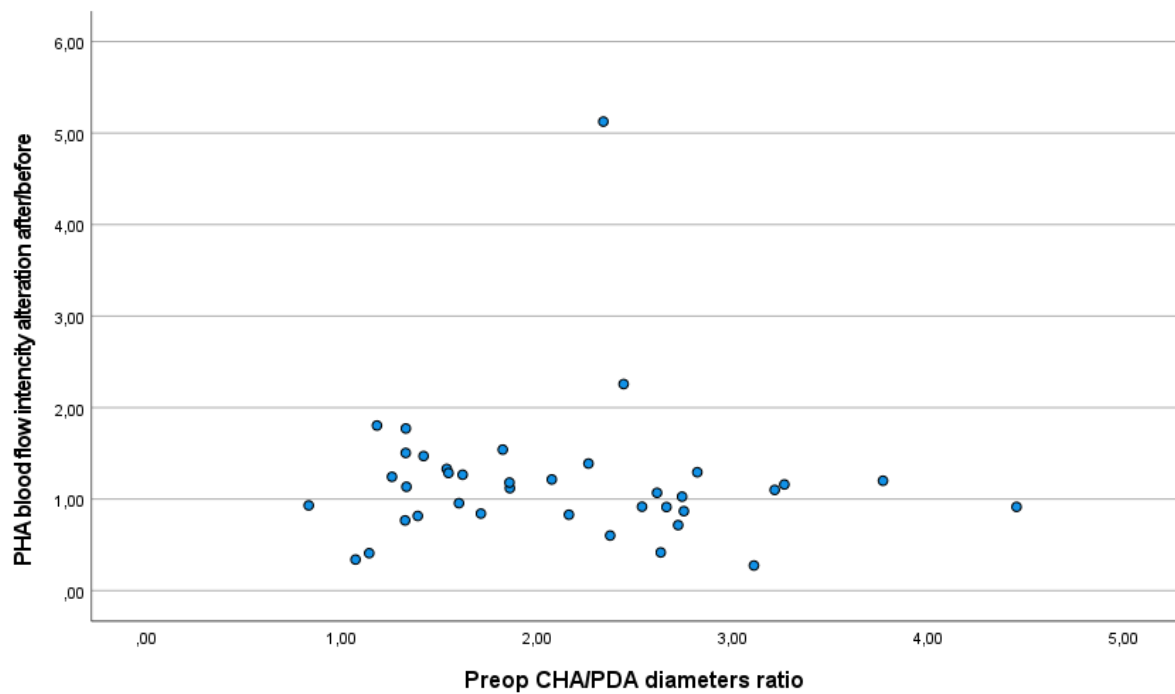
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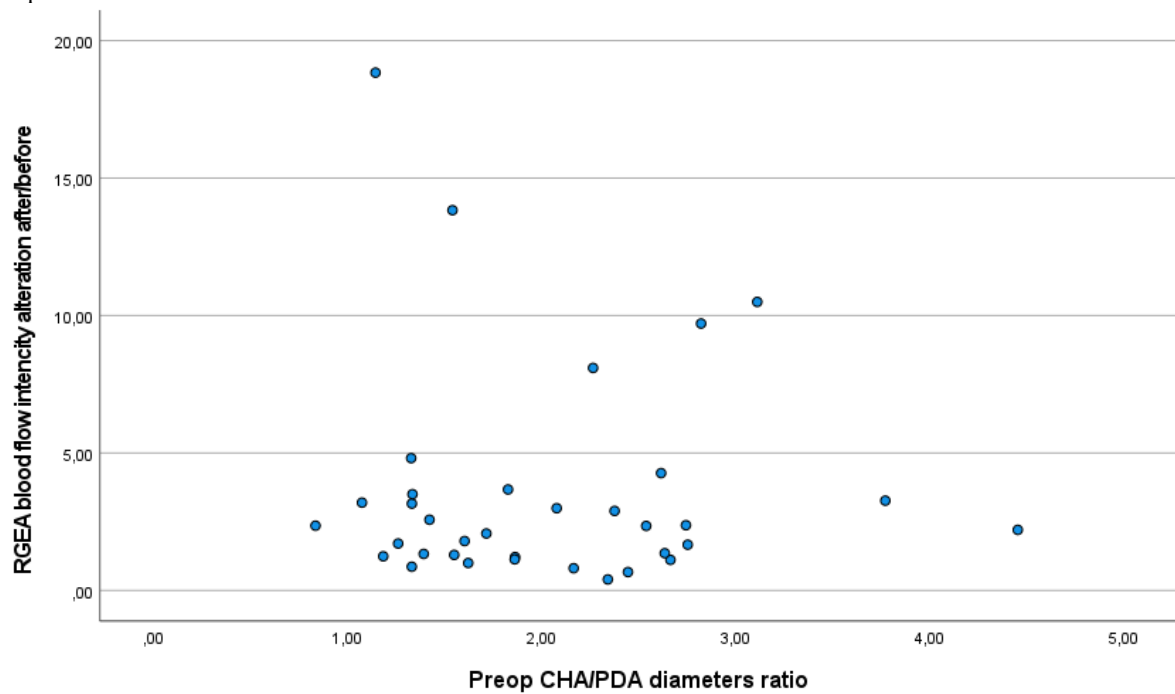
Graph



Graph



Graph



Correlations

Correlations

Preop CHA/PDA diameters ratio	GDA blood flow intensity alteration after/before	PDA blood flow intensity alteration after/before	PHA blood flow intensity alteration after/before	RGEA blood flow intensity alteration after/before
--	--	--	--	---

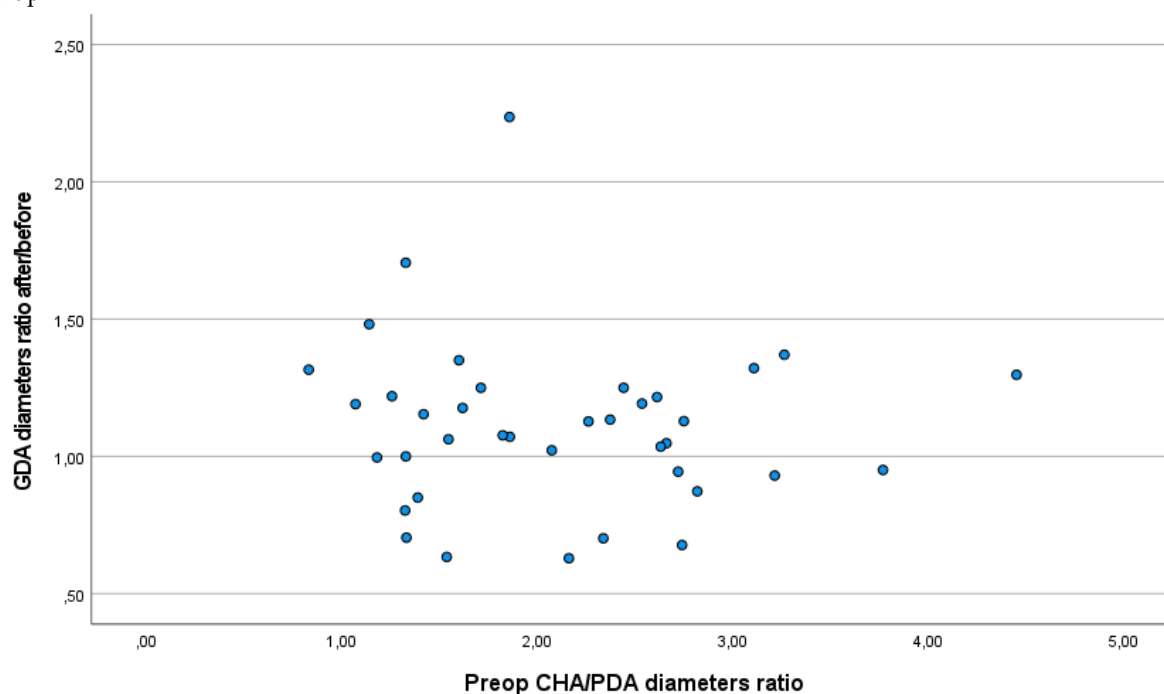
Preop diameters ratio	CHA/PDA	Pearson	1	-.092	.633	-.030	-.040
		Correlation					
		Sig. (2-tailed)		.583	.000	.857	.819
		N	38	38	38	38	35
GDA blood flow intensity alteration after/before		Pearson	-.092	1	-.042	-.057	-.057
		Correlation					
		Sig. (2-tailed)	.583		.800	.735	.744
		N	38	38	38	38	35
PDA blood flow intensity alteration after/before		Pearson	.633	-.042	1	-.015	-.033
		Correlation					
		Sig. (2-tailed)	.000	.800		.926	.851
		N	38	38	38	38	35
PHA blood flow intensity alteration after/before		Pearson	-.030	-.057	-.015	1	-.246
		Correlation					
		Sig. (2-tailed)	.857	.735	.926		.155
		N	38	38	38	38	35
RGEA blood flow intensity alteration after/before		Pearson	-.040	-.057	-.033	-.246	1
		Correlation					
		Sig. (2-tailed)	.819	.744	.851	.155	
		N	35	35	35	35	35

Nonparametric Correlations

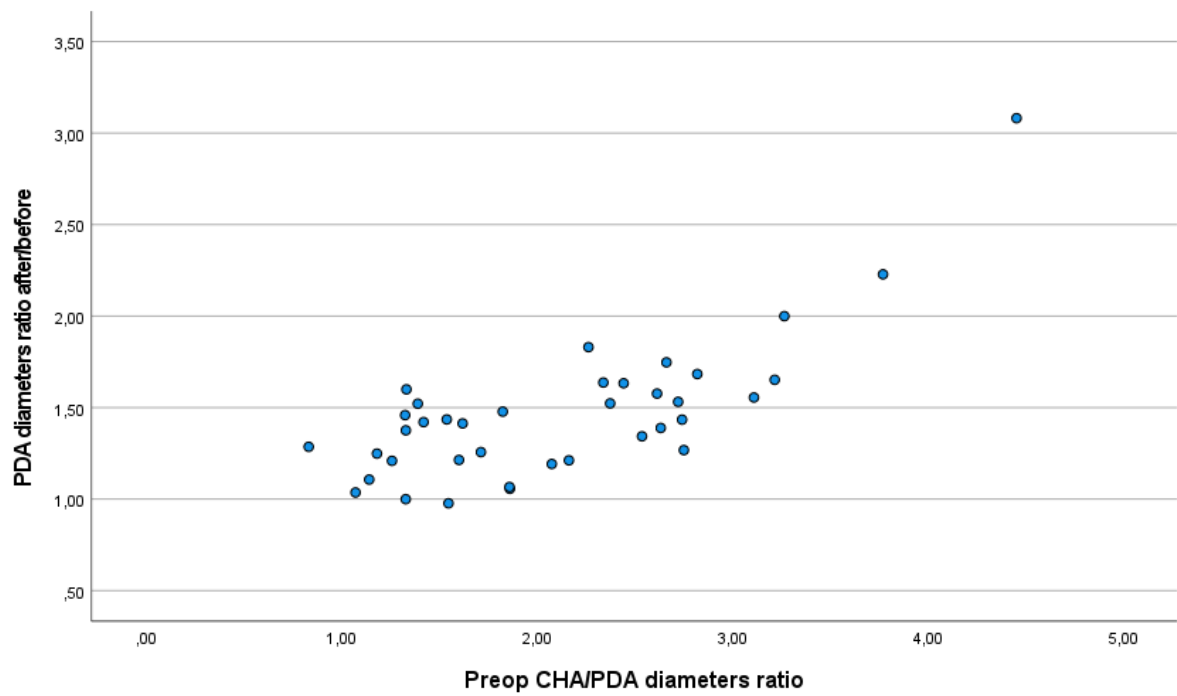
				Correlations				
				Preop CHA/PD A diameters ratio	GDA blood flow intensity alteration after/befo re	PDA blood flow intensity alteration after/befo re	PHA blood flow intensity alteration after/befo re	RGEA blood flow intensity alteration after/befor e
Spearman's rho	Preop diameters ratio	Correlation	1.000		-.089	.635	-.131	-.023
		Coefficient						
		Sig. (2-tailed)	.		.594	.000	.432	.897
		N	38		38	38	38	35
	GDA blood flow intensity alteration after/before	Correlation	-.089	1.000		-.246	-.109	-.057
		Coefficient						
		Sig. (2-tailed)	.594		.	.137	.515	.746
		N	38	38	38	38	38	35
	PDA blood flow intensity alteration after/before	Correlation	.635	-.246	1.000		.072	.268
		Coefficient						
		Sig. (2-tailed)	.000	.137	.		.669	.120
		N	38	38	38	38	38	35

PHA blood flow intensity alteration after/before	Correlation	-.131	-.109	.072	1.000	-.198
	Coefficient					
	Sig. (2-tailed)	.432	.515	.669	.	.254
	N	38	38	38	38	35
RGEA blood flow intensity alteration after/before	Correlation	-.023	-.057	.268	-.198	1.000
	Coefficient					
	Sig. (2-tailed)	.897	.746	.120	.254	.
	N	35	35	35	35	35

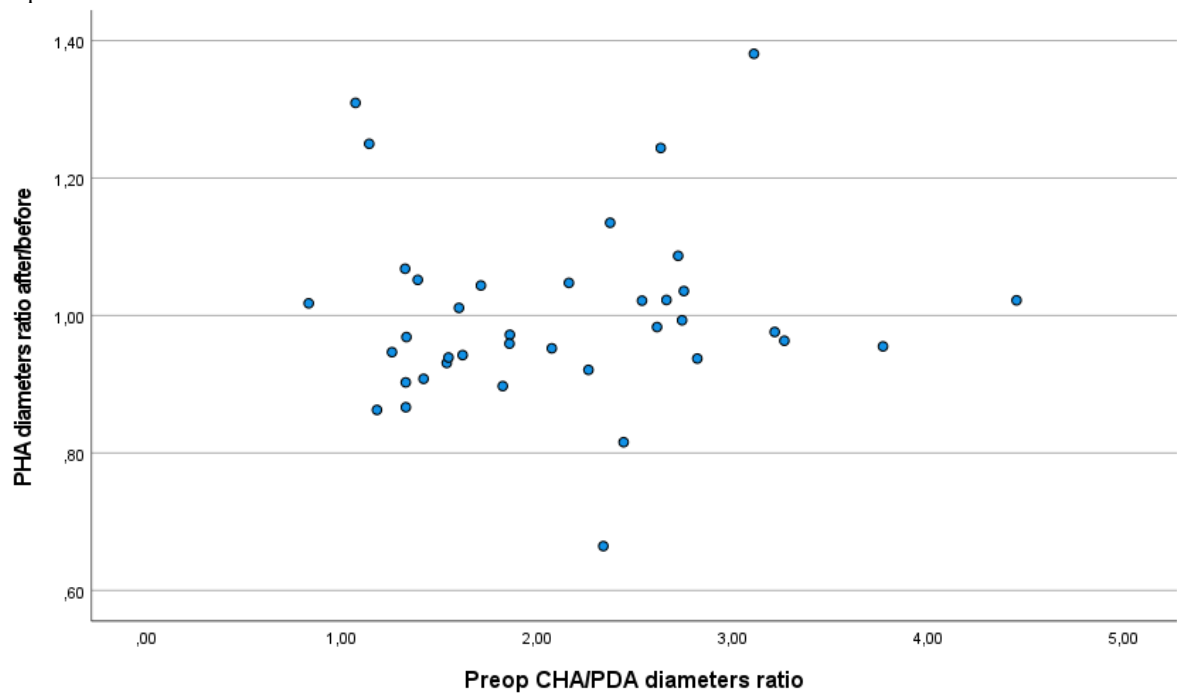
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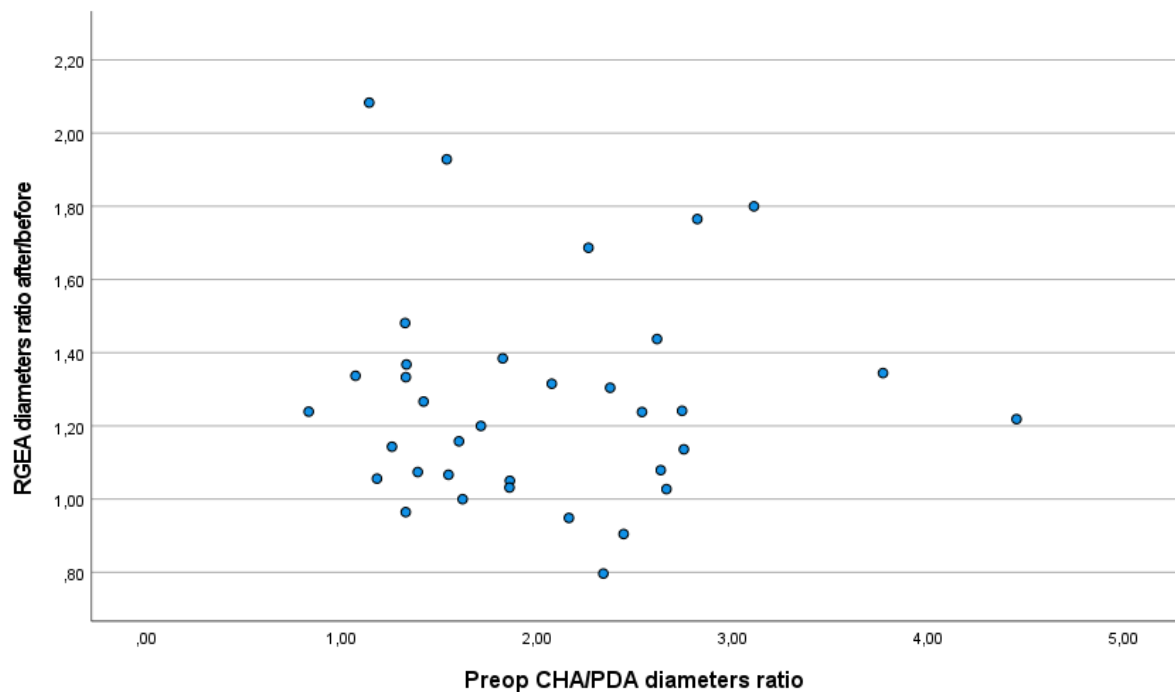
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Graph



Graph



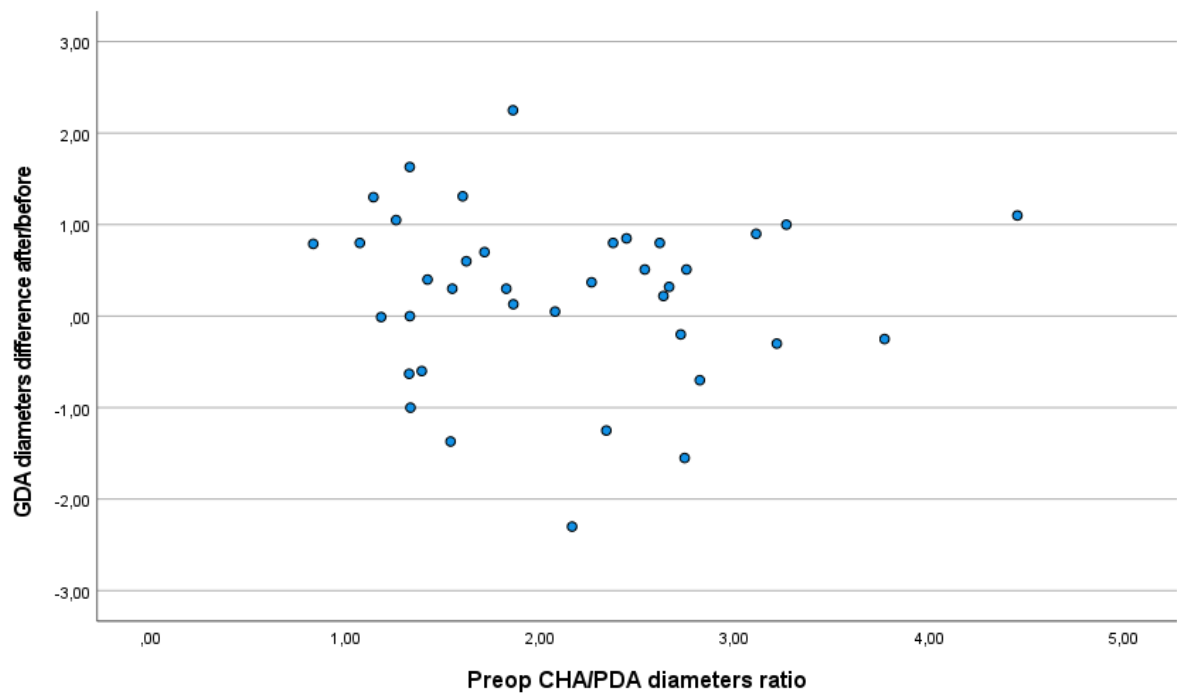
Correlations

Correlations						
		Preop CHA/PDA diameters ratio	GDA diameters ratio after/before	PDA diameters ratio after/before	PHA diameters ratio after/before	RGEA diameters ratio after/before
Preop CHA/PDA diameters ratio	Pearson	1	-.068	.754	.059	.007
	Correlation					
	Sig. (2-tailed)		.687	.000	.726	.968
	N	38	38	38	38	35
GDA diameters ratio after/before	Pearson	-.068	1	-.159	.152	-.073
	Correlation					
	Sig. (2-tailed)	.687		.341	.361	.678
	N	38	38	38	38	35
PDA diameters ratio after/before	Pearson	.754	-.159	1	-.107	.111
	Correlation					
	Sig. (2-tailed)	.000	.341		.522	.524
	N	38	38	38	38	35
PHA diameters ratio after/before	Pearson	.059	.152	-.107	1	.403
	Correlation					
	Sig. (2-tailed)	.726	.361	.522		.016
	N	38	38	38	38	35
RGEA diameters ratio after/before	Pearson	.007	-.073	.111	.403	1
	Correlation					
	Sig. (2-tailed)	.968	.678	.524	.016	
	N	35	35	35	35	35

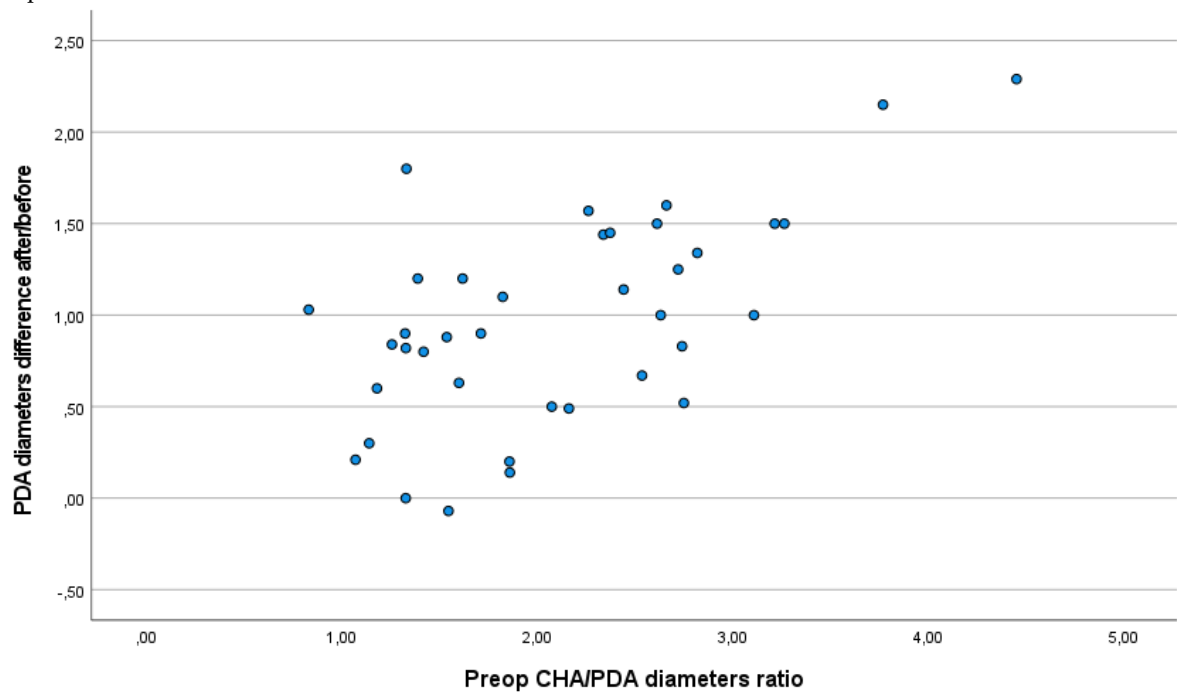
Nonparametric Correlations

				Correlations				
				Preop CHA/PD A diameters ratio	GDA diameters ratio after/befo re	PDA diameters ratio after/befo re	PHA diameters ratio after/befo re	RGEA diameters ratio after/befor e
Spearman's rho	Preop CHA/PDA diameters ratio	Correlation Coefficient Sig. (2-tailed) N		1.000	-.088	.635	.131	-.023
	GDA diameters ratio after/before	Correlation Coefficient Sig. (2-tailed) N		-.088	1.000	-.244	.106	-.059
	PDA diameters ratio after/before	Correlation Coefficient Sig. (2-tailed) N		.635	-.244	1.000	-.072	.268
	PHA diameters ratio after/before	Correlation Coefficient Sig. (2-tailed) N		.131	.106	-.072	1.000	.198
	RGEA diameters ratio after/before	Correlation Coefficient Sig. (2-tailed) N		-.023	-.059	.268	.198	1.000

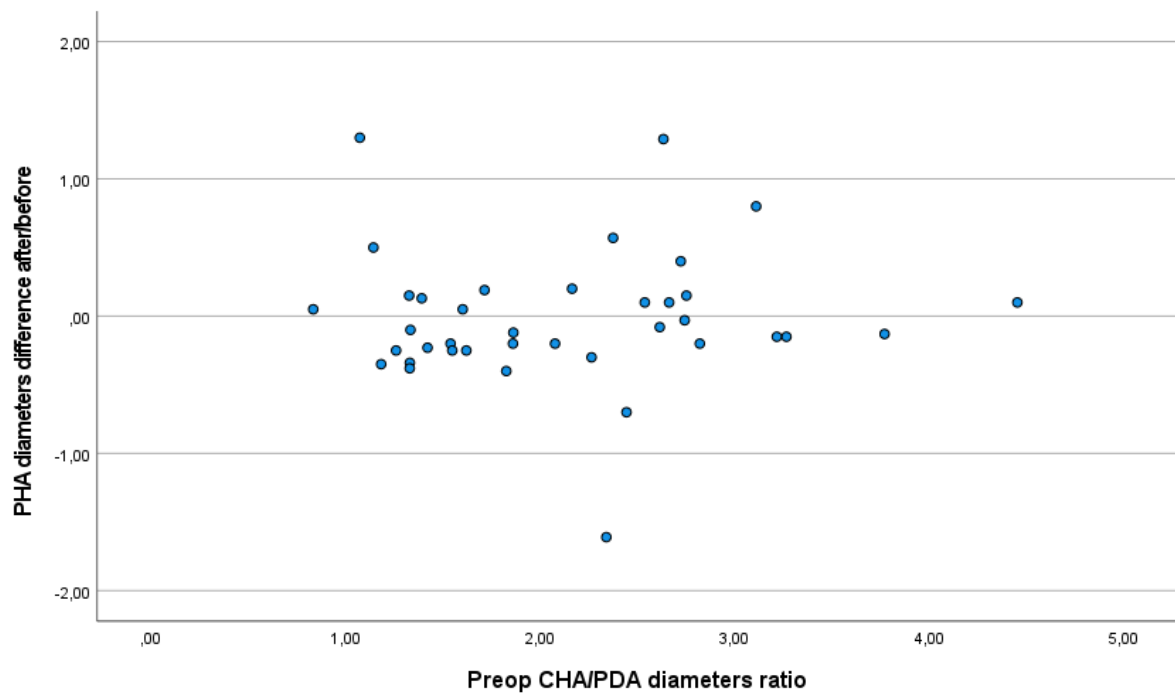
Graph



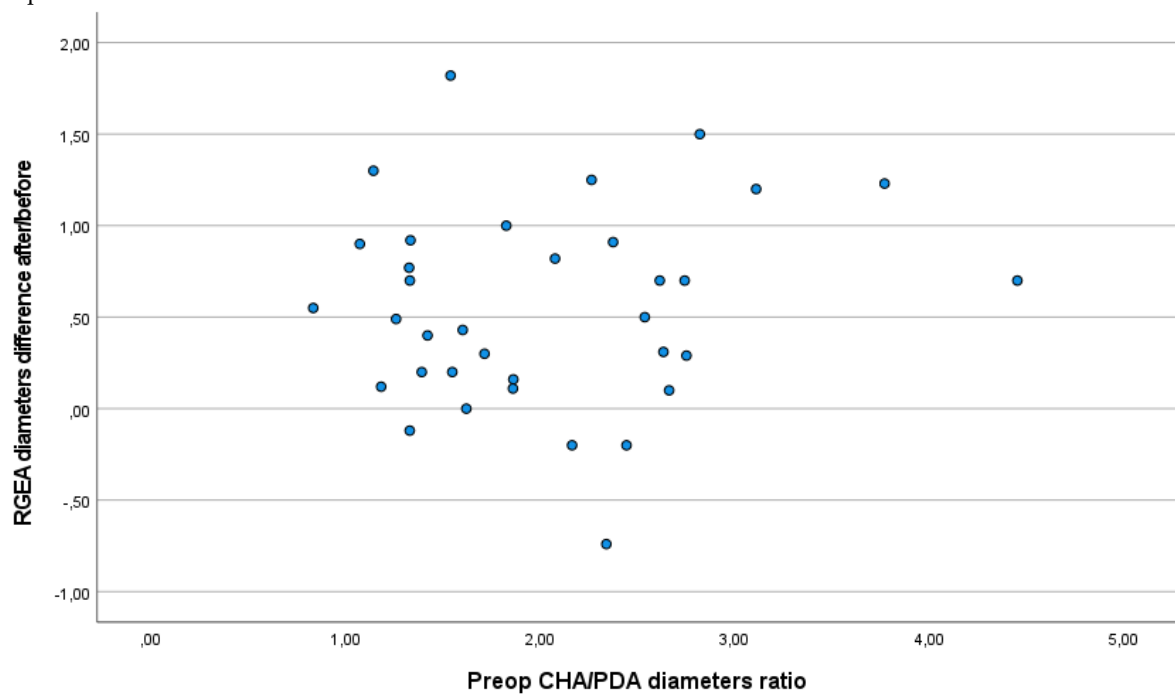
Graph



Graph



Graph



Correlations

Correlations						
			Preop CHA/PDA diameters ratio	GDA diameters difference after/before	PDA diameters difference after/before	PHA diameters difference after/before
Preop CHA/PDA diameters ratio	Pearson		1	-.052	.607	.040
	Correlation					
	Sig. (2-tailed)			.758	.000	.810
						RGEA diameters difference after/before
						.113
						.518

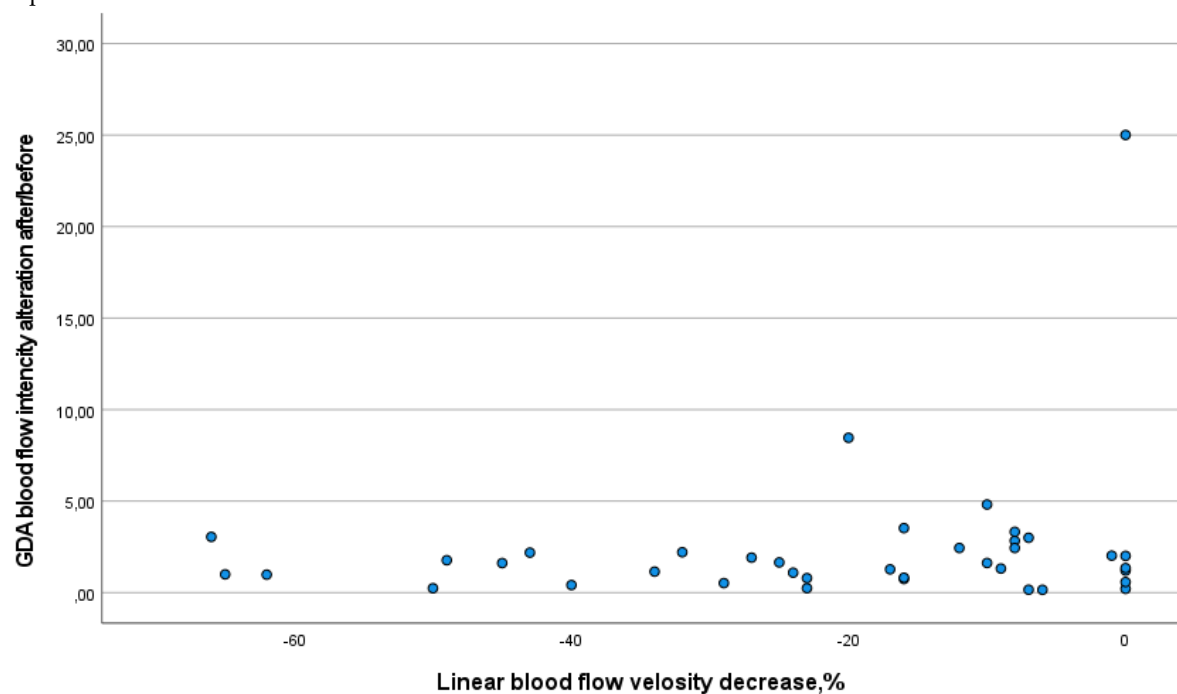
		N	38	38	38	38	35
GDA	diameters	Pearson	-.052	1	-.187	.176	-.055
difference		Correlation					
after/before		Sig. (2-tailed)	.758		.261	.290	.752
		N	38	38	38	38	35
PDA	diameters	Pearson	.607	-.187	1	-.126	.241
difference		Correlation					
after/before		Sig. (2-tailed)	.000	.261		.450	.163
		N	38	38	38	38	35
PHA	diameters	Pearson	.040	.176	-.126	1	.349
difference		Correlation					
after/before		Sig. (2-tailed)	.810	.290	.450		.040
		N	38	38	38	38	35
RGEA	diameters	Pearson	.113	-.055	.241	.349	1
difference		Correlation					
after/before		Sig. (2-tailed)	.518	.752	.163	.040	
		N	35	35	35	35	35

Nonparametric Correlations

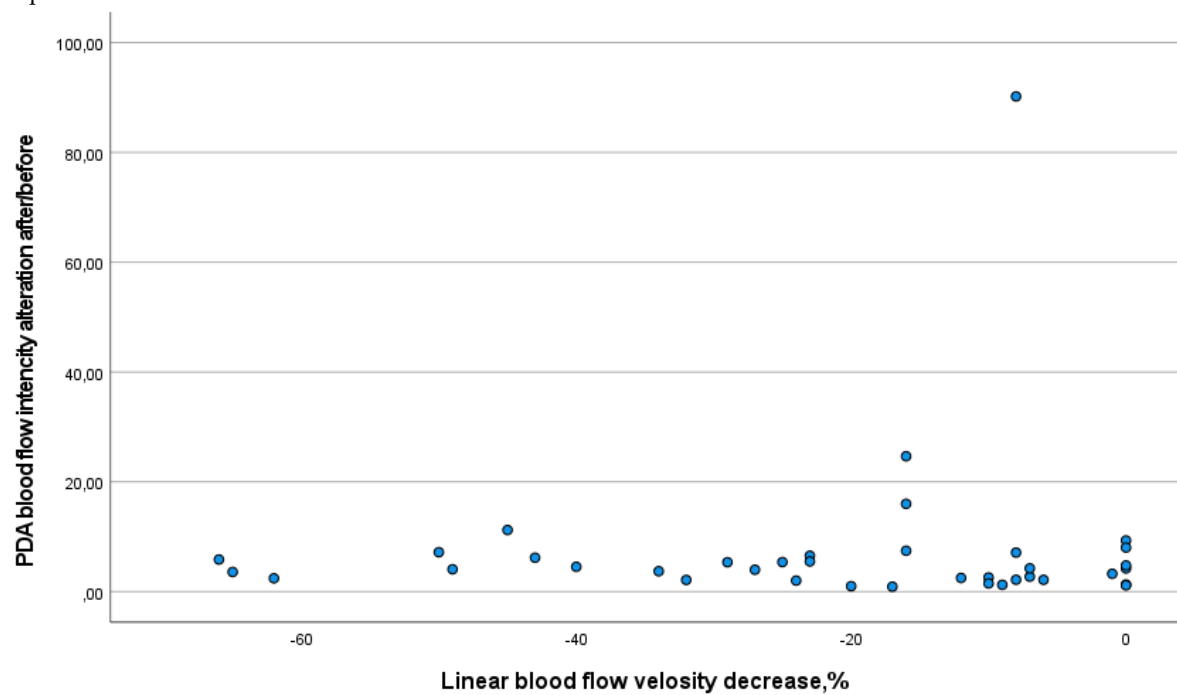
		Correlations					
		Preop CHA/PD A diameters ratio	GDA diameters difference after/befo re	PDA diameters difference after/befo re	PHA diameters difference after/befo re	RGEA diameters difference after/befo re	
Spearman's rho	Preop CHA/PDA diameters ratio	Correlation	1.000	-.089	.511	.144	.051
		Coefficient					
		Sig. (2-tailed)	.	.597	.001	.389	.771
		N	38	38	38	38	35
	GDA diameters difference after/before	Correlation	-.089	1.000	-.166	.057	-.095
		Coefficient					
		Sig. (2-tailed)	.597	.	.318	.732	.587
		N	38	38	38	38	35
	PDA diameters difference after/before	Correlation	.511	-.166	1.000	-.002	.255
		Coefficient					
		Sig. (2-tailed)	.001	.318	.	.990	.139
		N	38	38	38	38	35
	PHA diameters difference after/before	Correlation	.144	.057	-.002	1.000	.235
		Coefficient					
		Sig. (2-tailed)	.389	.732	.990	.	.174
		N	38	38	38	38	35

RGEA diameters difference after/before	Correlation Coefficient	.051	-.095	.255	.235	1.000
	Sig. (2-tailed)	.771	.587	.139	.174	.
	N	35	35	35	35	35

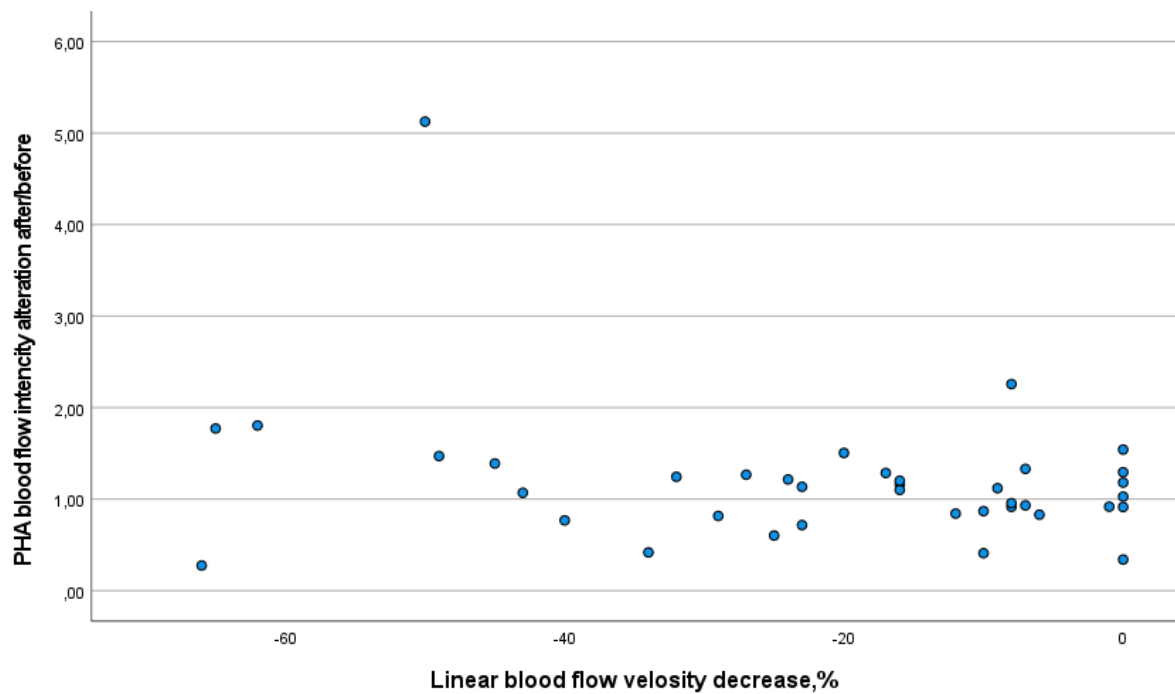
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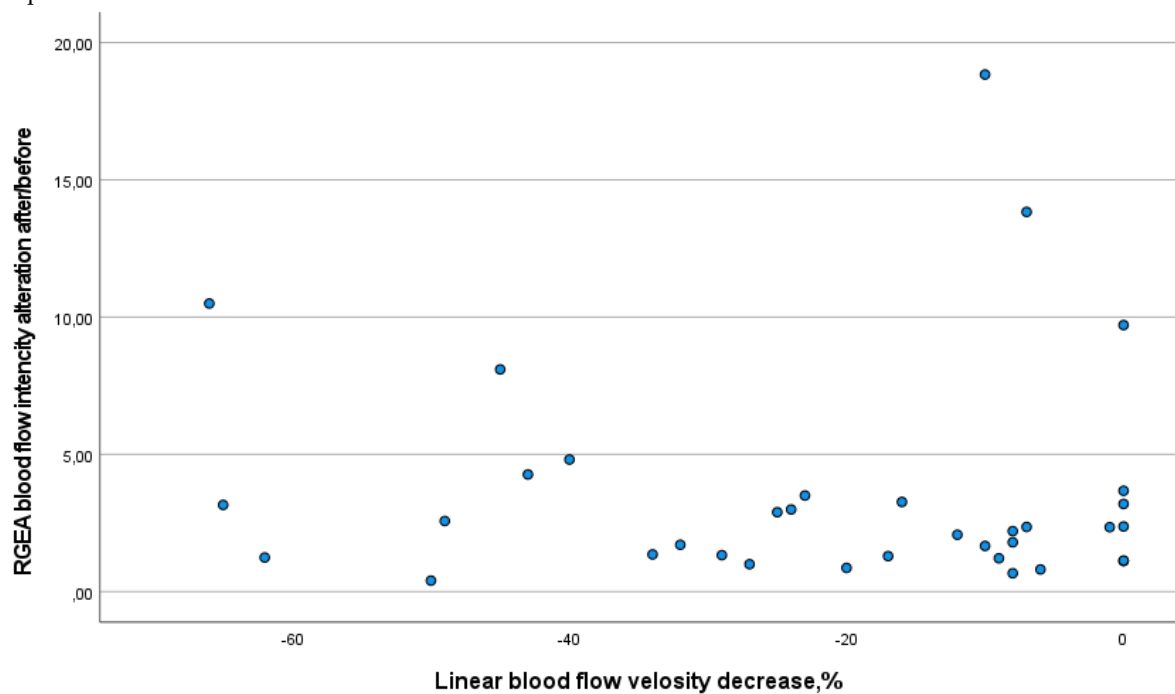
Graph



Graph



Graph



Correlations

Correlations					
	Linear blood flow velocity decrease, %	GDA blood flow intensity alteration after/before	PDA blood flow intensity alteration after/before	PHA blood flow intensity alteration after/before	RGEA blood flow intensity alteration after/before
Linear blood flow velocity decrease, %	1	.195	.093	-.270	-.025
Pearson Correlation					

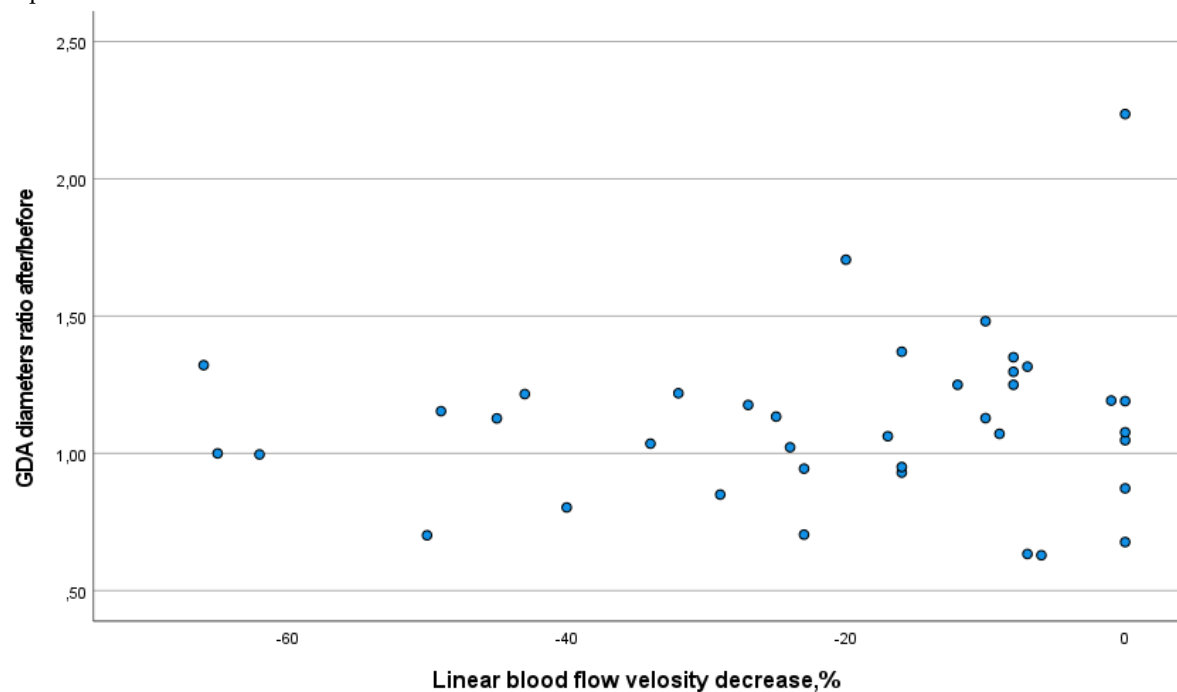
			Sig. (2-tailed)	.241	.578	.101	.885
		N	38	38	38	38	35
GDA	blood	flow	Pearson	.195	1	-.042	-.057
intensity	alteration		Correlation				
after/before			Sig. (2-tailed)	.241	.800	.735	.744
		N	38	38	38	38	35
PDA	blood	flow	Pearson	.093	-.042	1	-.015
intensity	alteration		Correlation				
after/before			Sig. (2-tailed)	.578	.800	.926	.851
		N	38	38	38	38	35
PHA	blood	flow	Pearson	-.270	-.057	-.015	1
intensity	alteration		Correlation				
after/before			Sig. (2-tailed)	.101	.735	.926	.155
		N	38	38	38	38	35
RGEA	blood	flow	Pearson	-.025	-.057	-.033	-.246
intensity	alteration		Correlation				
after/before			Sig. (2-tailed)	.885	.744	.851	.155
		N	35	35	35	35	35

Nonparametric Correlations

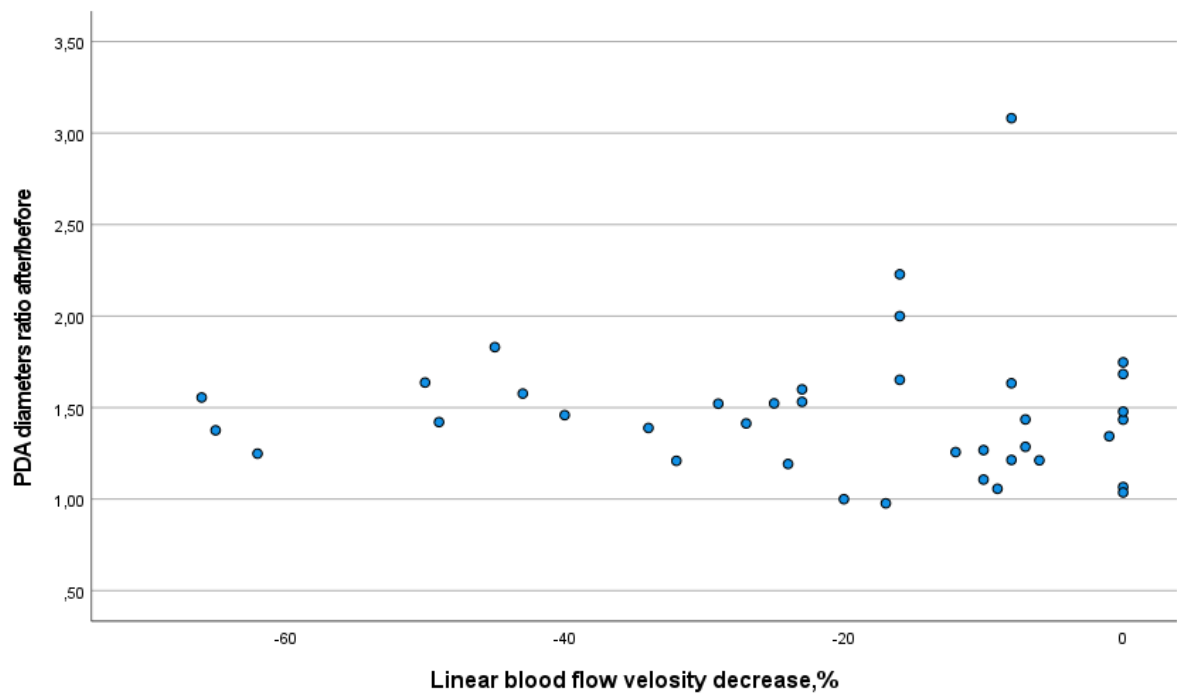
			Correlations				
			Linear blood flow velocity decrease. %	GDA blood flow intensity alteration after/befo re	PDA blood flow intensity alteration after/befo re	PHA blood flow intensity alteration after/befo re	RGEA blood flow intensity alteration after/befor e
Spearman's rho	Linear blood flow velocity decrease. %	Correlation	1.000	.085	-.114	-.142	-.063
		Coefficient					
		Sig. (2-tailed)	.	.613	.496	.397	.719
		N	38	38	38	38	35
	GDA blood flow intensity alteration after/before	Correlation	.085	1.000	-.246	-.109	-.057
		Coefficient					
		Sig. (2-tailed)	.613	.	.137	.515	.746
		N	38	38	38	38	35
	PDA blood flow intensity alteration after/before	Correlation	-.114	-.246	1.000	.072	.268
		Coefficient					
		Sig. (2-tailed)	.496	.137	.	.669	.120
		N	38	38	38	38	35
		Correlation	-.142	-.109	.072	1.000	-.198
		Coefficient					

PHA blood flow	Sig. (2-tailed)	.397	.515	.669	.	.254
intensity alteration	N	38	38	38	38	35
after/before						
RGEA blood flow	Correlation	-.063	-.057	.268	-.198	1.000
intensity alteration	Coefficient					
after/before	Sig. (2-tailed)	.719	.746	.120	.254	.
	N	35	35	35	35	35

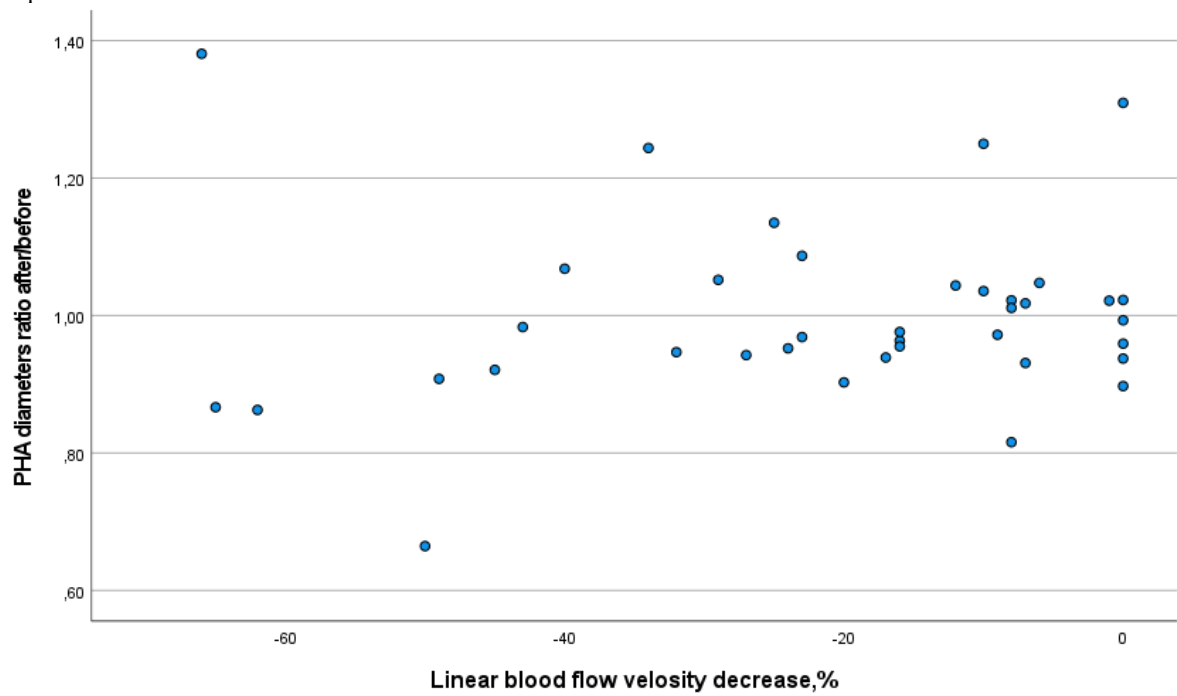
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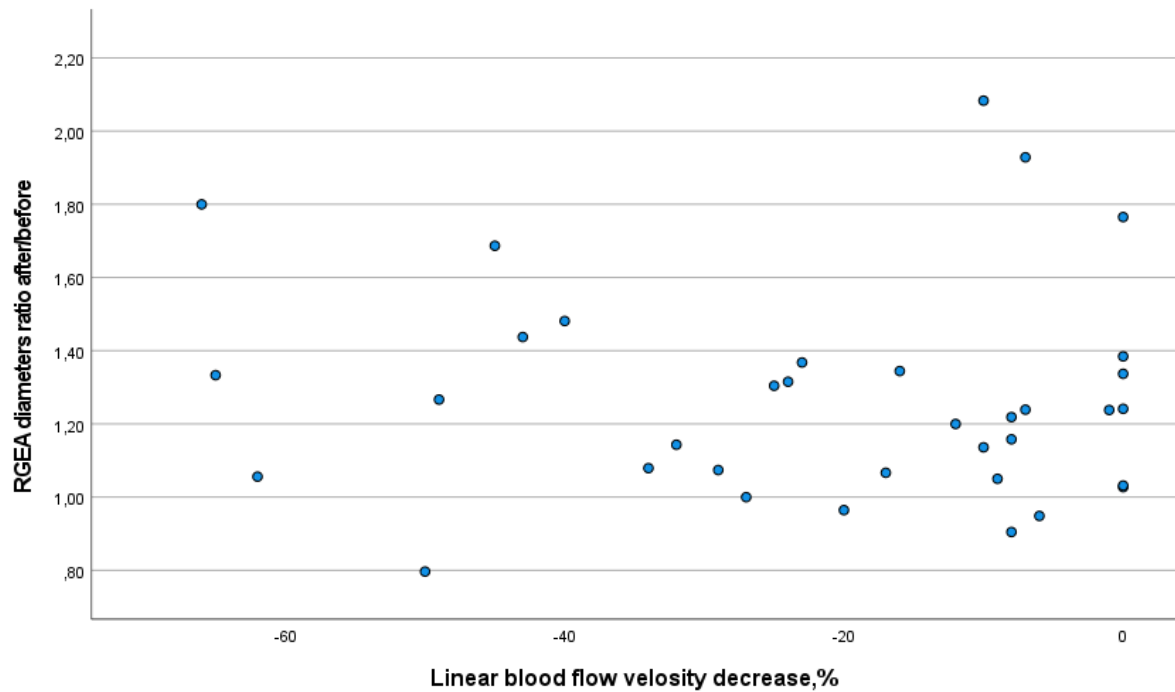
Graph



Graph



Graph



Correlations

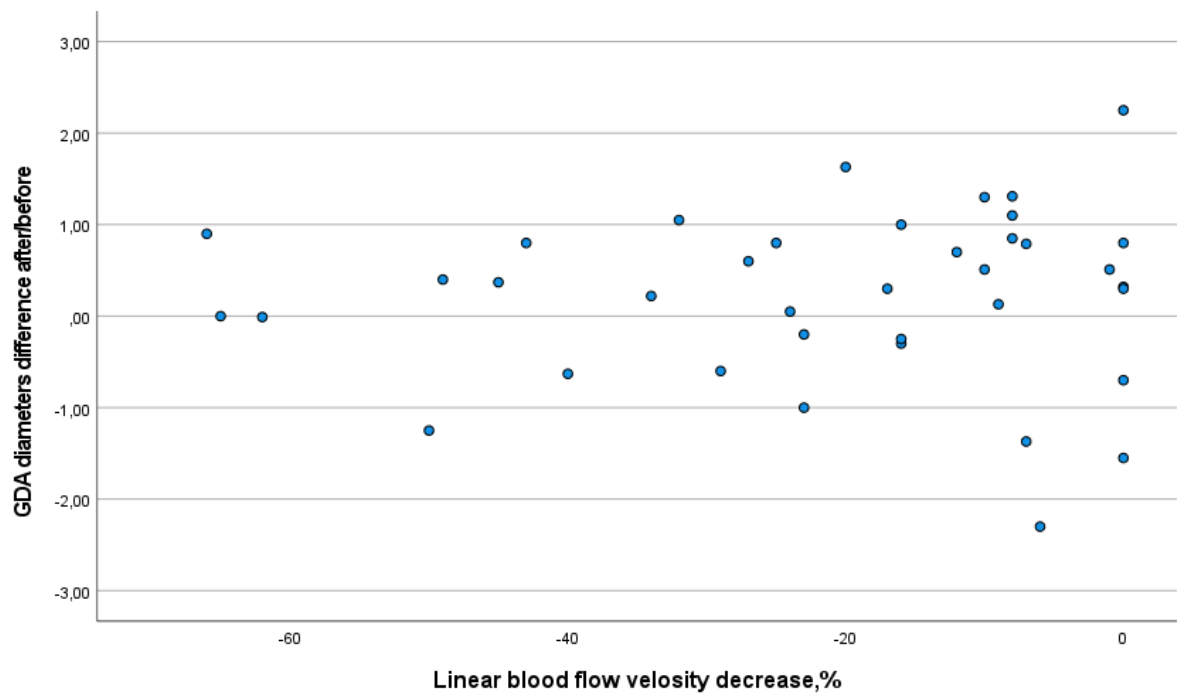
		Correlations				
		Linear blood flow velocity decrease. %	GDA diameters ratio after/before	PDA diameters ratio after/before	PHA diameters ratio after/before	RGEA diameters ratio after/before
Linear blood flow velocity decrease. %	Pearson	1	.132	-.024	.082	-.059
	Correlation					
	Sig. (2-tailed)		.428	.886	.624	.738
	N	38	38	38	38	35
GDA diameters ratio after/before	Pearson	.132	1	-.159	.152	-.073
	Correlation					
	Sig. (2-tailed)	.428		.341	.361	.678
	N	38	38	38	38	35
PDA diameters ratio after/before	Pearson	-.024	-.159	1	-.107	.111
	Correlation					
	Sig. (2-tailed)	.886	.341		.522	.524
	N	38	38	38	38	35
PHA diameters ratio after/before	Pearson	.082	.152	-.107	1	.403
	Correlation					
	Sig. (2-tailed)	.624	.361	.522		.016
	N	38	38	38	38	35
RGEA diameters ratio after/before	Pearson	-.059	-.073	.111	.403	1
	Correlation					
	Sig. (2-tailed)	.738	.678	.524	.016	

N	35	35	35	35	35
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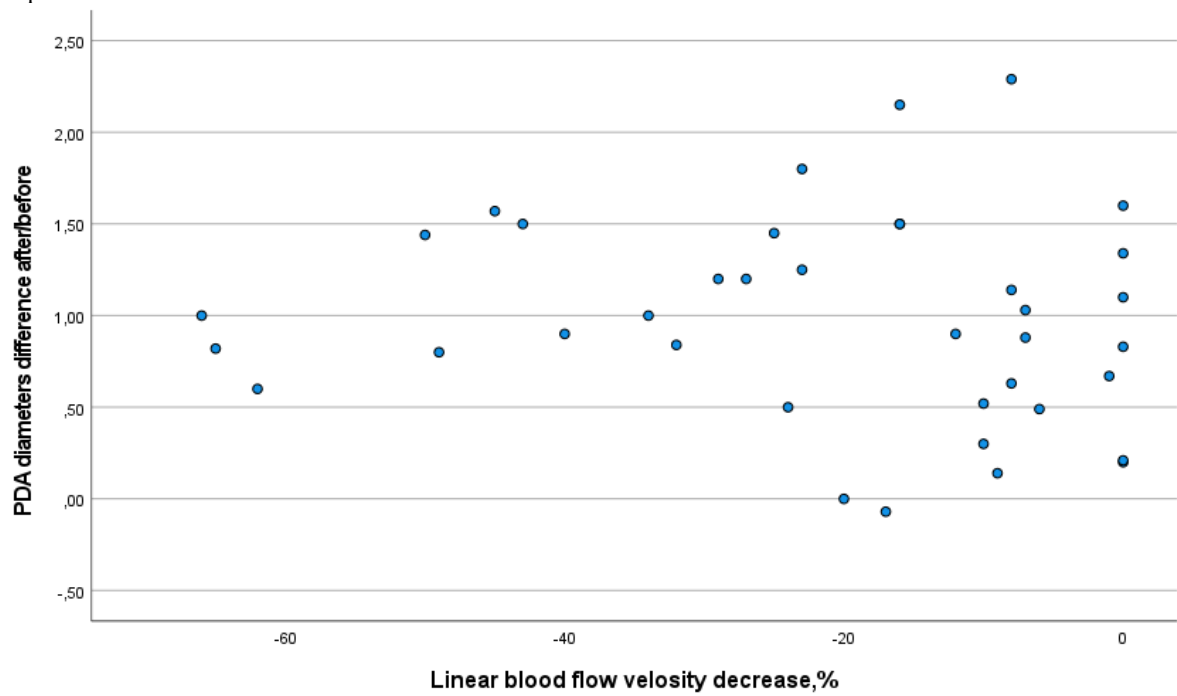
Nonparametric Correlations

			Correlations				
			Linear blood flow velocity decrease. %	GDA diameters ratio after/befo re	PDA diameters ratio after/befo re	PHA diameters ratio after/befo re	RGEA diameters ratio after/befor e
Spearman's rho	Linear blood flow velocity decrease. %	Correlation	1.000	.085	-.114	.142	-.063
		Coefficient					
		Sig. (2-tailed)	.	.611	.496	.397	.719
		N	38	38	38	38	35
	GDA diameters ratio after/before	Correlation	.085	1.000	-.244	.106	-.059
		Coefficient					
		Sig. (2-tailed)	.611	.	.140	.527	.737
		N	38	38	38	38	35
	PDA diameters ratio after/before	Correlation	-.114	-.244	1.000	-.072	.268
		Coefficient					
		Sig. (2-tailed)	.496	.140	.	.669	.120
		N	38	38	38	38	35
	PHA diameters ratio after/before	Correlation	.142	.106	-.072	1.000	.198
		Coefficient					
		Sig. (2-tailed)	.397	.527	.669	.	.254
		N	38	38	38	38	35
	RGEA diameters ratio after/before	Correlation	-.063	-.059	.268	.198	1.000
		Coefficient					
		Sig. (2-tailed)	.719	.737	.120	.254	.
		N	35	35	35	35	35

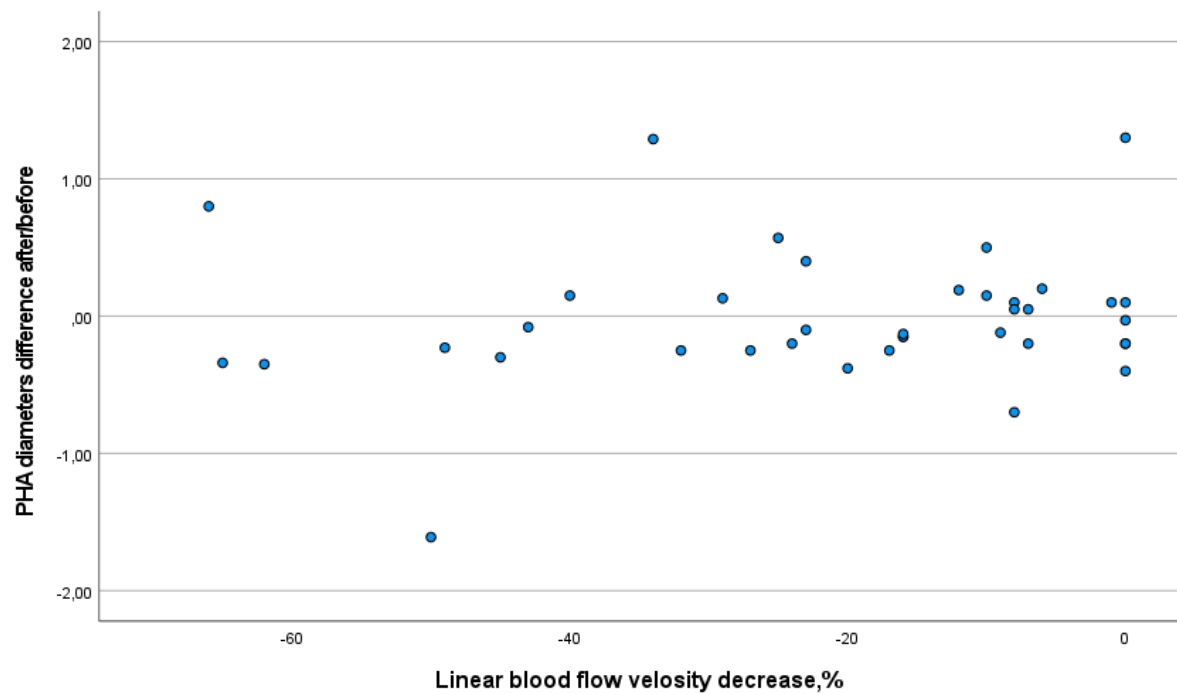
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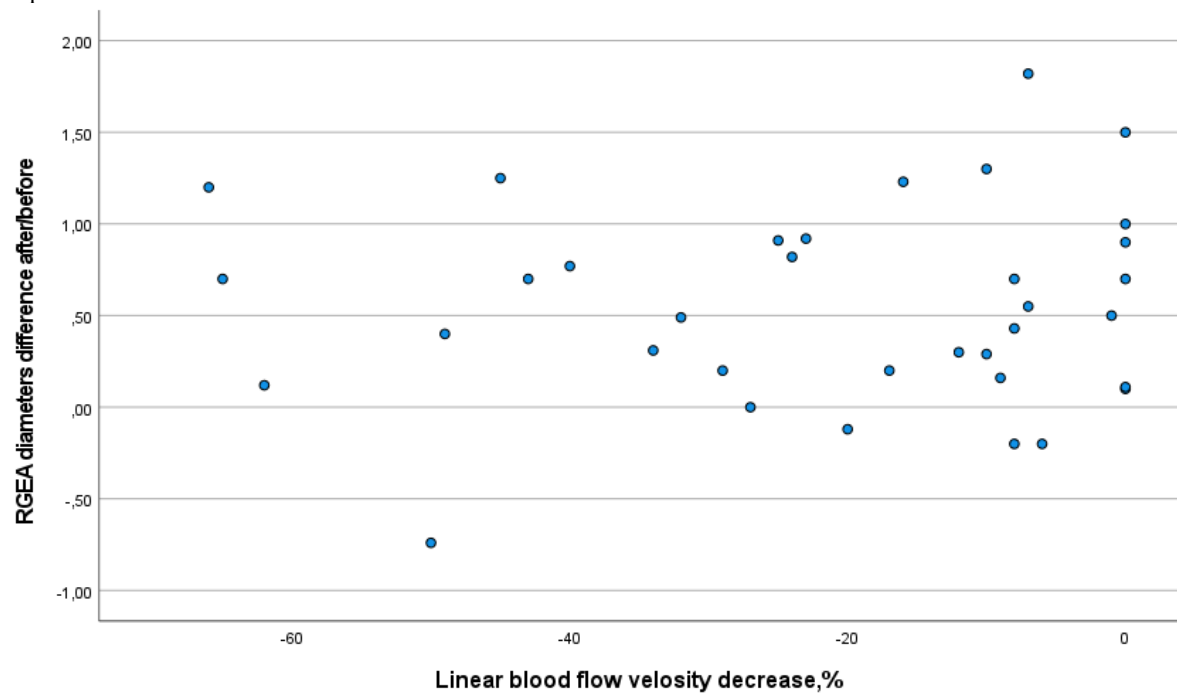
Graph



Graph



Graph



Correlations

				Correlations				
				Linear	GDA	PDA	PHA	RGEA
				blood flow	diameters	diameters	diameters	diameters
				velocity	difference	difference	difference	difference
				decrease.%	after/before	after/before	after/before	after/before
Linear	blood	flow	Pearson	1	.047	-.112	.136	.063
velocity	decrease.%		Correlation					

		Sig. (2-tailed)		.780	.505	.416	.721
		N	38	38	38	38	35
GDA	diameters	Pearson	.047	1	-.187	.176	-.055
difference		Correlation					
after/before		Sig. (2-tailed)	.780		.261	.290	.752
		N	38	38	38	38	35
PDA	diameters	Pearson	-.112	-.187	1	-.126	.241
difference		Correlation					
after/before		Sig. (2-tailed)	.505	.261		.450	.163
		N	38	38	38	38	35
PHA	diameters	Pearson	.136	.176	-.126	1	.349
difference		Correlation					
after/before		Sig. (2-tailed)	.416	.290	.450		.040
		N	38	38	38	38	35
RGEA	diameters	Pearson	.063	-.055	.241	.349	1
difference		Correlation					
after/before		Sig. (2-tailed)	.721	.752	.163	.040	
		N	35	35	35	35	35

Nonparametric Correlations

		Correlations					
		Linear					
		blood		GDA	PDA	PHA	RGEA
		flow		diameters	diameters	diameters	diameters
		velocity		difference	difference	difference	difference
		decrease.		after/befo	after/befo	after/befo	after/befo
		%		re	re	re	e
Spearman's rho	Linear blood flow	Correlation	1.000	.060	-.142	.160	.046
	velocity	Coefficient					
	decrease.%	Sig. (2-tailed)	.	.721	.395	.338	.791
		N	38	38	38	38	35
	GDA diameters	Correlation	.060	1.000	-.166	.057	-.095
	difference	Coefficient					
	after/before	Sig. (2-tailed)	.721	.	.318	.732	.587
		N	38	38	38	38	35
	PDA diameters	Correlation	-.142	-.166	1.000	-.002	.255
	difference	Coefficient					
	after/before	Sig. (2-tailed)	.395	.318	.	.990	.139
		N	38	38	38	38	35
	PHA diameters	Correlation	.160	.057	-.002	1.000	.235
	difference	Coefficient					
	after/before	Sig. (2-tailed)	.338	.732	.990	.	.174

	N	38	38	38	38	35
RGEA diameters difference after/before	Correlation Coefficient	.046	-.095	.255	.235	1.000
	Sig. (2-tailed)	.791	.587	.139	.174	.
	N	35	35	35	35	35

T-Test

Group Statistics					
	Puls preservation	N	Mean	Std. Deviation	Std. Error Mean
GDA blood flow intensity alteration after/before	no	4	1.5601	.99783	.49891
	yes	34	2.4687	4.29446	.73649
PDA blood flow intensity alteration after/before	no	4	5.3010	3.03835	1.51918
	yes	34	7.5634	15.33233	2.62947
PHA blood flow intensity alteration after/before	no	4	1.1916	.73733	.36866
	yes	34	1.1842	.78858	.13524
RGEA blood flow intensity alteration after/before	no	4	4.0041	4.42891	2.21446
	yes	31	3.4930	4.02407	.72274
GDA diameters ratio after/before	no	4	1.0914	.15515	.07757
	yes	34	1.1106	.31842	.05461
PDA diameters ratio after/before	no	4	1.4821	.21718	.10859
	yes	34	1.4635	.40070	.06872
PHA diameters ratio after/before	no	4	1.0333	.24347	.12173
	yes	34	.9964	.11895	.02040
RGEA diameters ratio after/before	no	4	1.3042	.35815	.17907
	yes	31	1.2644	.29022	.05212
GDA diameters difference after/before	no	4	.3025	.42680	.21340
	yes	34	.2241	.97675	.16751
PDA diameters difference after/before	no	4	1.0050	.42907	.21453
	yes	34	.9765	.58052	.09956
PHA diameters difference after/before	no	4	.0525	.54070	.27035
	yes	34	-.0221	.49866	.08552
RGEA diameters difference after/before	no	4	.5300	.52624	.26312
	yes	31	.5548	.55292	.09931

Independent Samples Test

Levene's Test for Equality of Variances		t-test for Equality of Means						
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error	95% Confidence Interval of the Difference	

									Difference	Lower	Upper
GDA flow alteration after/before	blood intensity	Equal variances assumed	.414	.524	-.417	36	.679	-.90868	2.17871	- 5.32731	3.50996
		Equal variances not assumed			- 1.021	21.178	.319	-.90868	.88957	- 2.75770	.94034
PDA flow alteration after/before	blood intensity	Equal variances assumed	.382	.540	-.291	36	.773	- 2.26241	7.77338	- 18.02756	13.50275
		Equal variances not assumed			-.745	26.378	.463	- 2.26241	3.03678	- 8.50024	3.97543
PHA flow alteration after/before	blood intensity	Equal variances assumed	.338	.565	.018	36	.986	.00746	.41465	-.83348	.84841
		Equal variances not assumed			.019	3.855	.986	.00746	.39269	- 1.09912	1.11405
RGEA flow alteration after/before	blood intensity	Equal variances assumed	.210	.650	.237	33	.814	.51109	2.15835	- 3.88010	4.90228
		Equal variances not assumed			.219	3.669	.838	.51109	2.32942	- 6.19314	7.21532
GDA diameters ratio after/before		Equal variances assumed	.918	.345	-.118	36	.907	-.01922	.16288	-.34956	.31111
		Equal variances not assumed			-.203	6.563	.846	-.01922	.09487	-.24661	.20816
PDA diameters ratio after/before		Equal variances assumed	.390	.536	.090	36	.929	.01854	.20548	-.39819	.43528
		Equal variances not assumed			.144	5.800	.890	.01854	.12851	-.29855	.33564
PHA diameters		Equal variances assumed	3.679	.063	.522	36	.605	.03692	.07074	-.10655	.18038

ratio after/before	Equal variances not assumed			.299	3.17 1	.783	.03692	.12343	-.34420	.41804
RGEA diameters ratio after/before	Equal variances assumed	.248	.622	.253	33	.802	.03986	.15781	-.28120	.36093
	Equal variances not assumed			.214	3.52 7	.843	.03986	.18651	-.50651	.58623
GDA diameters difference after/before	Equal variances assumed	2.160	.150	.157	36	.876	.07838	.49859	-.93281	1.08958
	Equal variances not assumed			.289	7.57 5	.780	.07838	.27129	-.55339	.71015
PDA diameters difference after/before	Equal variances assumed	.864	.359	.095	36	.925	.02853	.30100	-.58193	.63899
	Equal variances not assumed			.121	4.41 3	.909	.02853	.23651	-.60460	.66166
PHA diameters difference after/before	Equal variances assumed	.146	.704	.281	36	.780	.07456	.26551	-.46393	.61305
	Equal variances not assumed			.263	3.62 7	.807	.07456	.28355	-.74568	.89480
RGEA diameters difference after/before	Equal variances assumed	.008	.928	-.085	33	.933	-.02484	.29250	-.61993	.57025
	Equal variances not assumed			-.088	3.90 8	.934	-.02484	.28124	-.81302	.76334

NPar Tests

Mann-Whitney Test

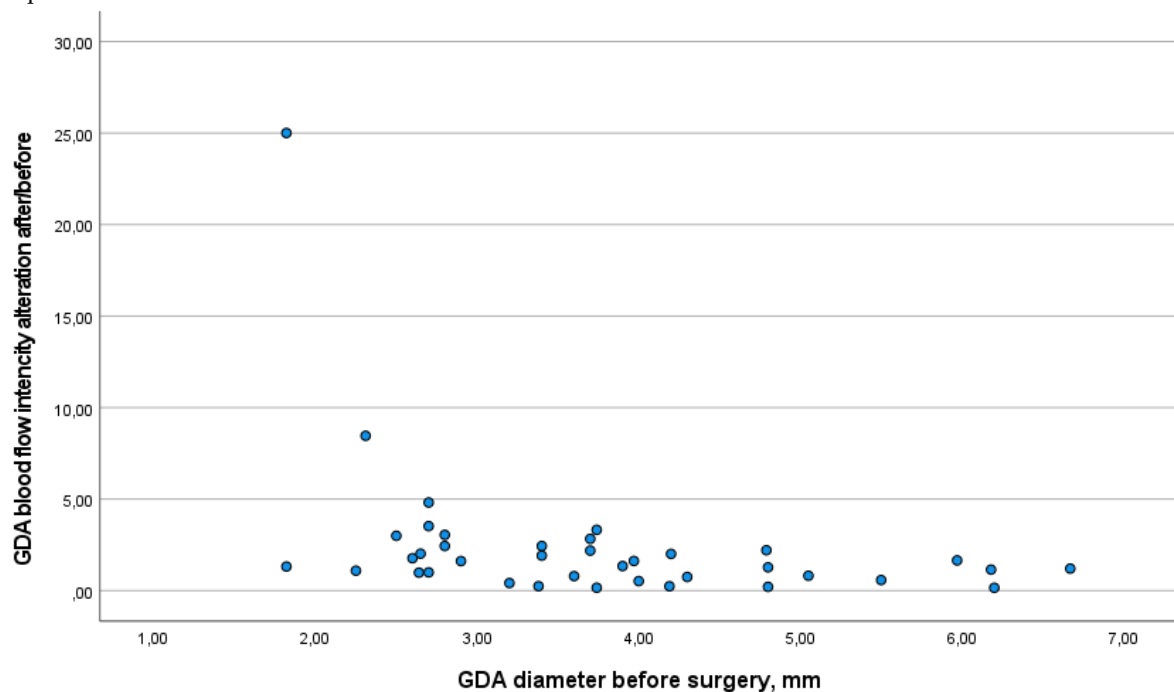
Ranks				
	Puls preservation	N	Mean Rank	Sum of Ranks
GDA blood flow intensity	no	4	18.50	74.00
alteration after/before	yes	34	19.62	667.00
	Total	38		
PDA blood flow intensity	no	4	22.00	88.00
alteration after/before	yes	34	19.21	653.00

	Total	38		
PHA blood flow intensity	no	4	21.00	84.00
alteration after/before	yes	34	19.32	657.00
	Total	38		
RGEA blood flow intensity	no	4	18.00	72.00
alteration after/before	yes	31	18.00	558.00
	Total	35		
GDA diameters ratio	no	4	18.50	74.00
after/before	yes	34	19.62	667.00
	Total	38		
PDA diameters ratio	no	4	22.00	88.00
after/before	yes	34	19.21	653.00
	Total	38		
PHA diameters ratio	no	4	18.00	72.00
after/before	yes	34	19.68	669.00
	Total	38		
RGEA diameters ratio	no	4	18.00	72.00
after/before	yes	31	18.00	558.00
	Total	35		
GDA diameters difference	no	4	18.75	75.00
after/before	yes	34	19.59	666.00
	Total	38		
PDA diameters difference	no	4	19.88	79.50
after/before	yes	34	19.46	661.50
	Total	38		
PHA diameters difference	no	4	18.25	73.00
after/before	yes	34	19.65	668.00
	Total	38		
RGEA diameters difference	no	4	16.38	65.50
after/before	yes	31	18.21	564.50
	Total	35		

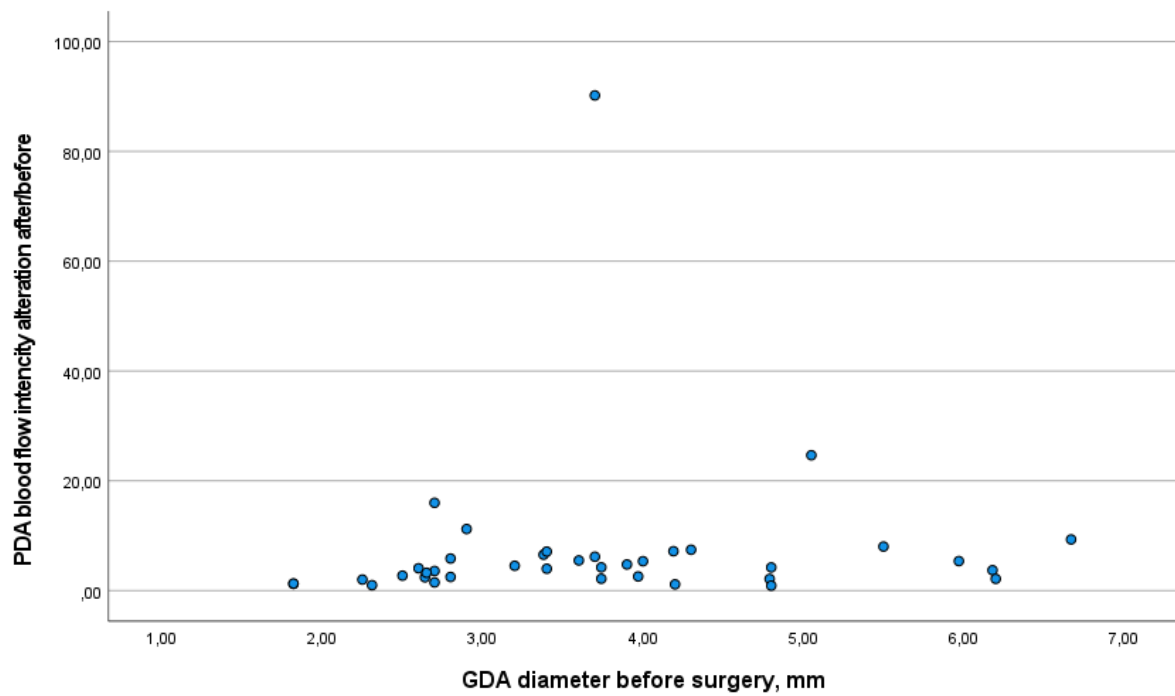
	Test Statistics				
	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2- tailed)	Exact Sig. [2*(1- tailed Sig.)]
GDA blood flow intensity alteration after/before	64.000	74.000	-.190	.849	.873
PDA blood flow intensity alteration after/before	58.000	653.000	-.476	.634	.663
PHA blood flow intensity alteration after/before	62.000	657.000	-.285	.775	.801

RGEA blood flow intensity alteration after/before			62.000	558.000	.000	1.000	1.000
GDA diameters ratio after/before			64.000	74.000	-.190	.849	.873
PDA diameters ratio after/before			58.000	653.000	-.476	.634	.663
PHA diameters ratio after/before			62.000	72.000	-.285	.775	.801
RGEA diameters ratio after/before			62.000	558.000	.000	1.000	1.000
GDA diameters difference after/before			65.000	75.000	-.143	.886	.909
PDA diameters difference after/before			66.500	661.500	-.071	.943	.945
PHA diameters difference after/before			63.000	73.000	-.238	.812	.836
RGEA diameters difference after/before			55.500	65.500	-.337	.736	.745

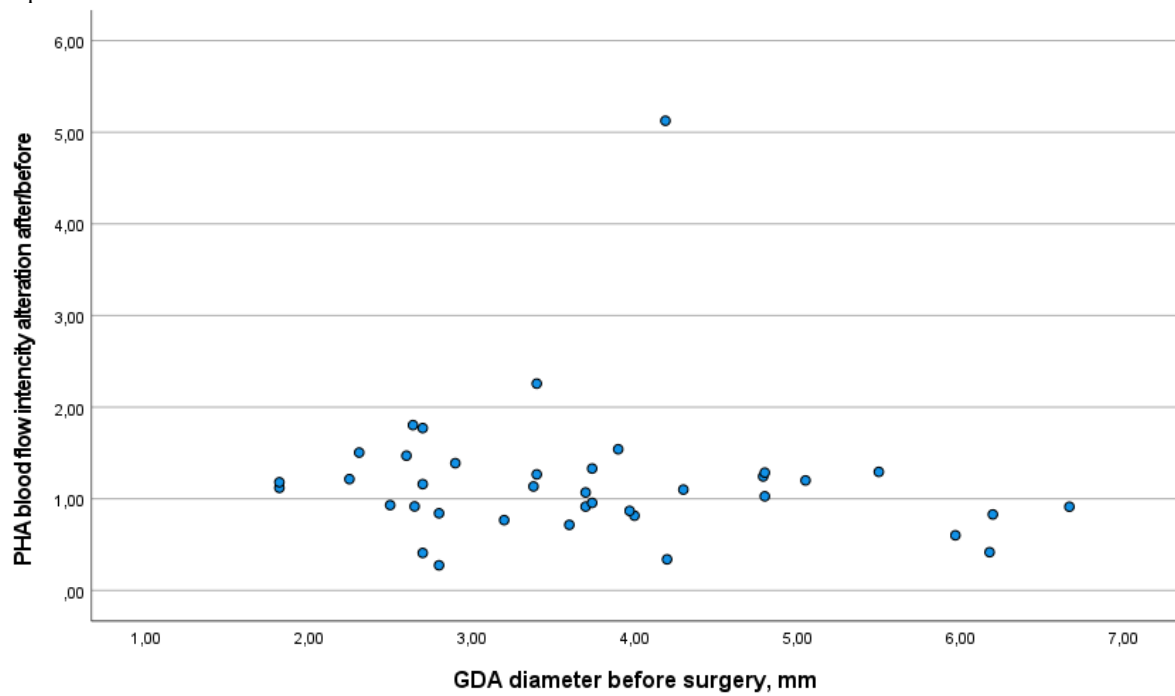
Graph



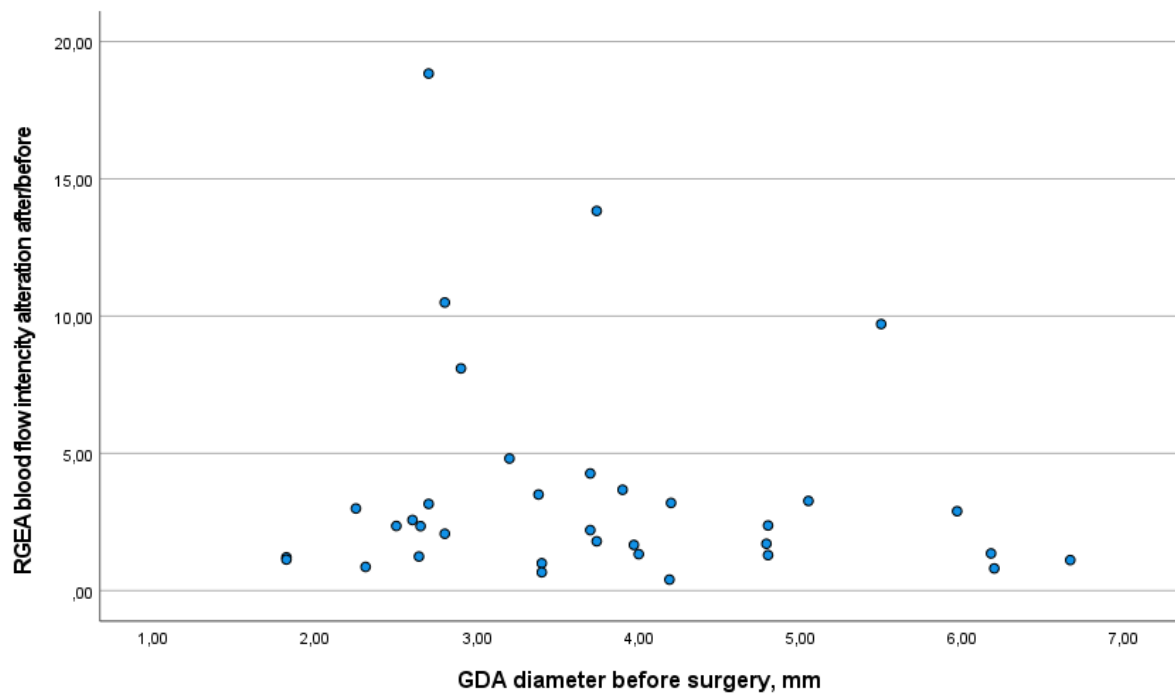
Graph



Graph



Graph



Correlations

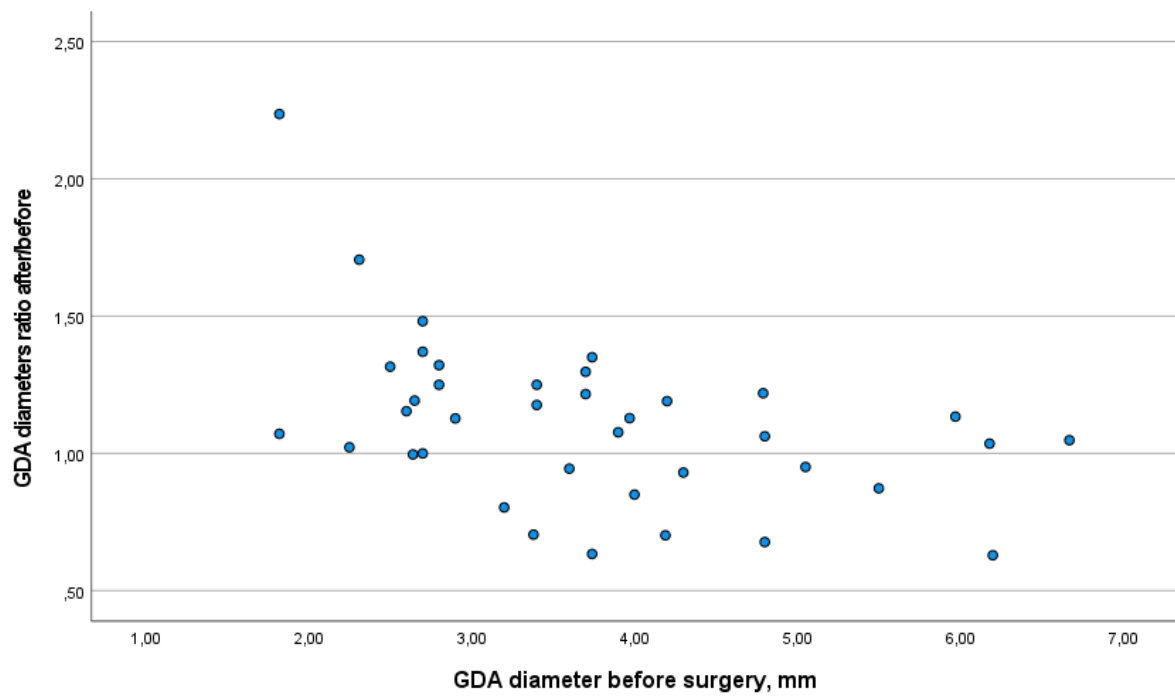
		Correlations				
		GDA diameter before surgery. mm	GDA blood flow intensity alteration after/before	PDA blood flow intensity alteration after/before	PHA blood flow intensity alteration after/before	RGEA blood flow intensity alteration after/before
GDA diameter before surgery. mm	Pearson	1	-.381	.069	-.084	-.122
	Correlation					
	Sig. (2-tailed)		.018	.679	.616	.486
	N	38	38	38	38	35
GDA blood flow intensity alteration after/before	Pearson	-.381	1	-.042	-.057	-.057
	Correlation					
	Sig. (2-tailed)	.018		.800	.735	.744
	N	38	38	38	38	35
PDA blood flow intensity alteration after/before	Pearson	.069	-.042	1	-.015	-.033
	Correlation					
	Sig. (2-tailed)	.679	.800		.926	.851
	N	38	38	38	38	35
PHA blood flow intensity alteration after/before	Pearson	-.084	-.057	-.015	1	-.246
	Correlation					
	Sig. (2-tailed)	.616	.735	.926		.155
	N	38	38	38	38	35
Pearson		-.122	-.057	-.033	-.246	1
Correlation						

RGEA	blood	flow	Sig. (2-tailed)	.486	.744	.851	.155	
intensity	alteration	N		35	35	35	35	35
after/before								

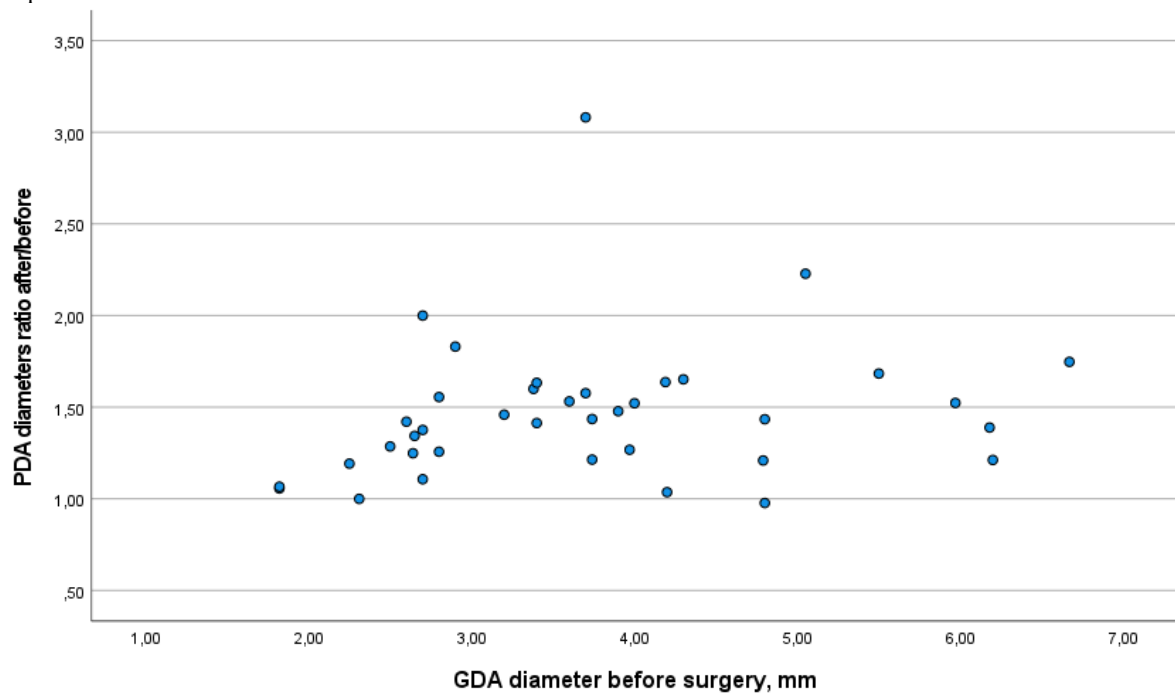
Nonparametric Correlations

				Correlations				
				GDA diameter before surgery. mm	GDA blood flow intensity alteration after/befo re	PDA blood flow intensity alteration after/befo re	PHA blood flow intensity alteration after/befo re	RGEA blood flow intensity alteration after/befor e
Spearman's rho	GDA before mm	diameter surgery.	Correlation	1.000	-.460	.310	-.222	-.059
			Coefficient					
			Sig. (2-tailed)	.	.004	.058	.180	.736
			N	38	38	38	38	35
	GDA intensity alteration after/before	blood flow alteration	Correlation	-.460	1.000	-.246	-.109	-.057
			Coefficient					
			Sig. (2-tailed)	.004	.	.137	.515	.746
			N	38	38	38	38	35
	PDA intensity alteration after/before	blood flow alteration	Correlation	.310	-.246	1.000	.072	.268
			Coefficient					
			Sig. (2-tailed)	.058	.137	.	.669	.120
			N	38	38	38	38	35
	PHA intensity alteration after/before	blood flow alteration	Correlation	-.222	-.109	.072	1.000	-.198
			Coefficient					
			Sig. (2-tailed)	.180	.515	.669	.	.254
			N	38	38	38	38	35
	RGEA intensity alteration after/before	blood flow alteration	Correlation	-.059	-.057	.268	-.198	1.000
			Coefficient					
			Sig. (2-tailed)	.736	.746	.120	.254	.
			N	35	35	35	35	35

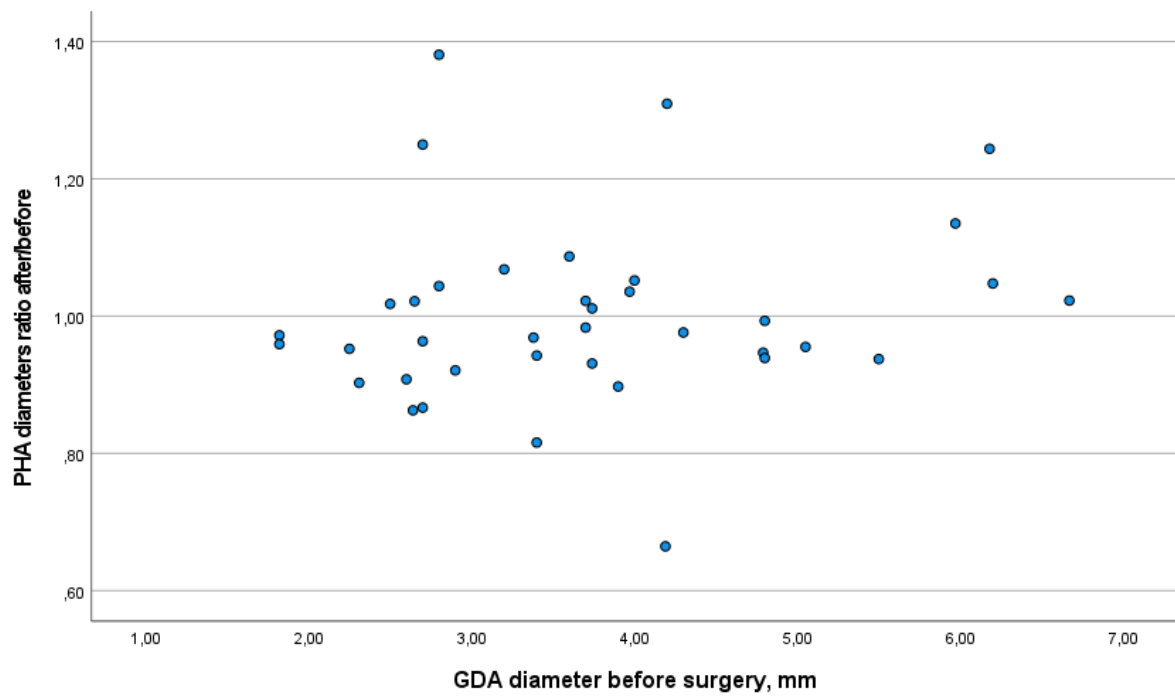
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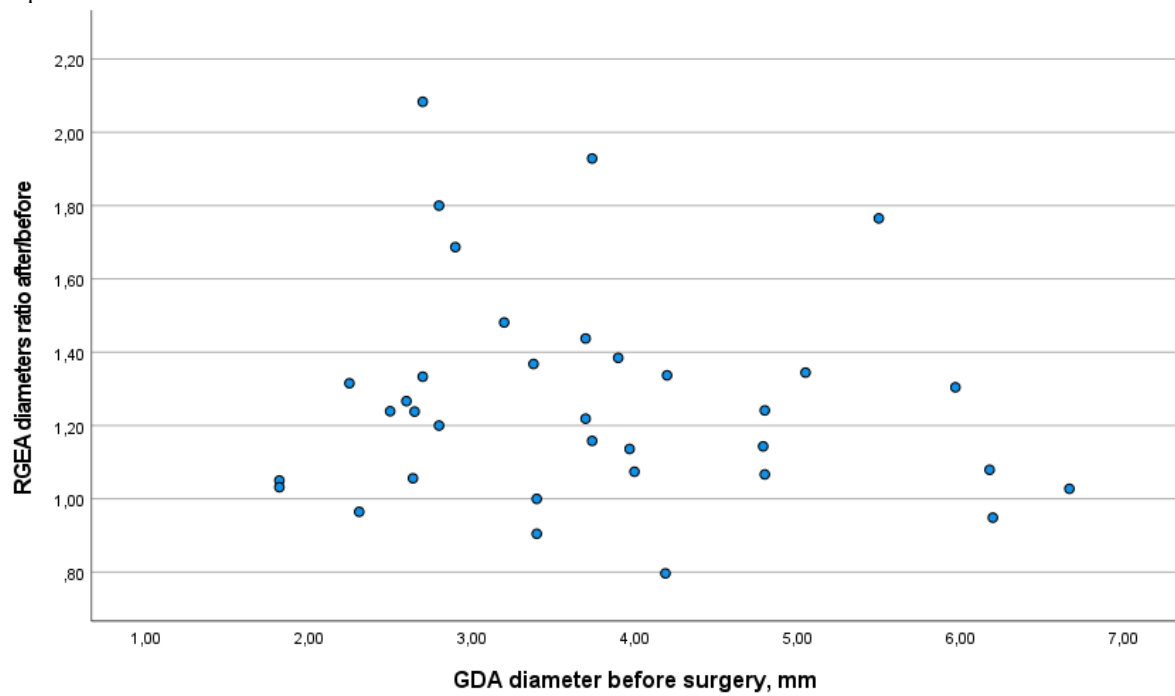
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Graph



Graph



Correlations

Correlations				
GDA diameter before surgery. mm	GDA diameters ratio after/before	PDA diameters ratio after/before	PHA diameters ratio after/before	RGEA diameters ratio after/before

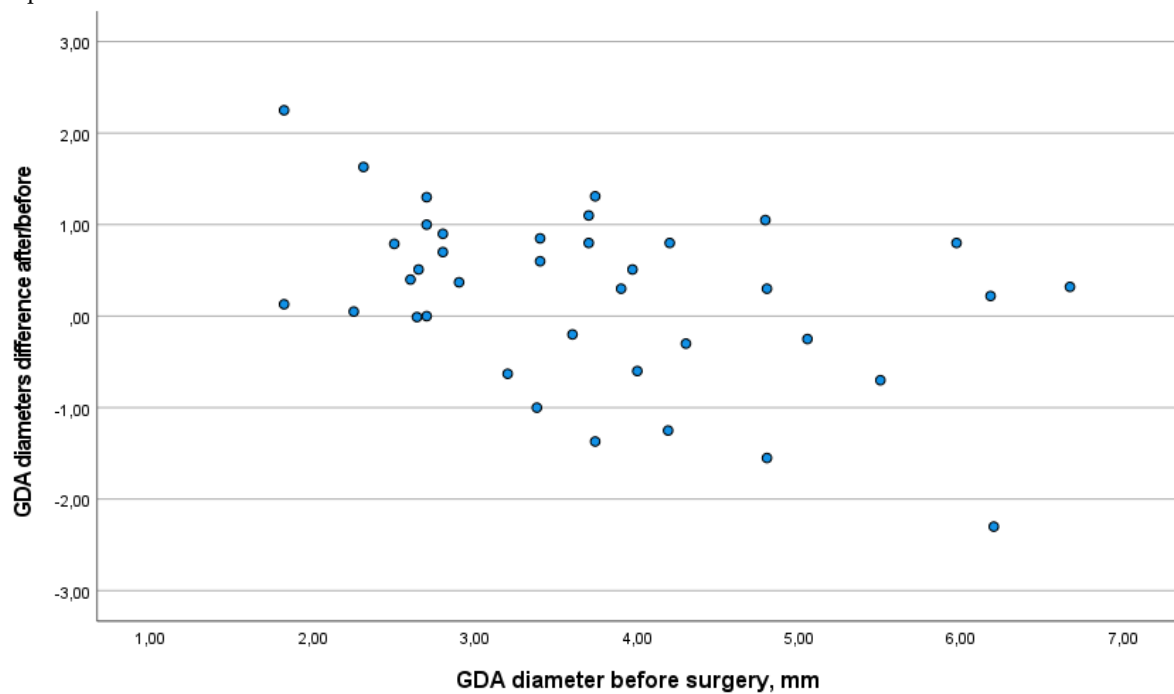
GDA diameter before surgery. mm	Pearson	1	-.465	.196	.154	-.126
	Correlation					
	Sig. (2-tailed)		.003	.237	.354	.471
	N	38	38	38	38	35
GDA diameters ratio after/before	Pearson	-.465	1	-.159	.152	-.073
	Correlation					
	Sig. (2-tailed)	.003		.341	.361	.678
	N	38	38	38	38	35
PDA diameters ratio after/before	Pearson	.196	-.159	1	-.107	.111
	Correlation					
	Sig. (2-tailed)	.237	.341		.522	.524
	N	38	38	38	38	35
PHA diameters ratio after/before	Pearson	.154	.152	-.107	1	.403
	Correlation					
	Sig. (2-tailed)	.354	.361	.522		.016
	N	38	38	38	38	35
RGEA diameters ratio after/before	Pearson	-.126	-.073	.111	.403	1
	Correlation					
	Sig. (2-tailed)	.471	.678	.524	.016	
	N	35	35	35	35	35

Nonparametric Correlations

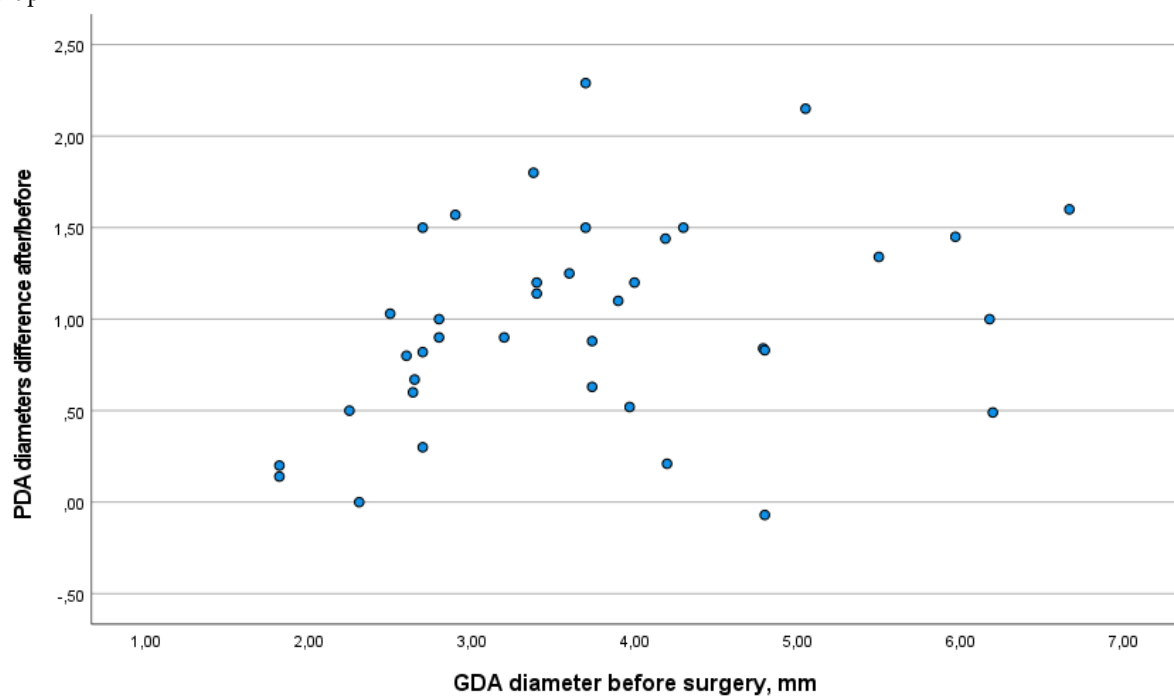
				Correlations				
				GDA diameter before surgery. mm	GDA diameters ratio after/before	PDA diameters ratio after/before	PHA diameters ratio after/before	RGEA diameters ratio after/before
Spearman's rho	GDA diameter before surgery. mm	Correlation		1.000	-.459	.310	.222	-.059
		Coefficient						
		Sig. (2-tailed)		.	.004	.058	.180	.736
	N			38	38	38	38	35
	GDA diameters ratio after/before	Correlation		-.459	1.000	-.244	.106	-.059
		Coefficient						
		Sig. (2-tailed)		.004	.	.140	.527	.737
	N			38	38	38	38	35
	PDA diameters ratio after/before	Correlation		.310	-.244	1.000	-.072	.268
		Coefficient						
		Sig. (2-tailed)		.058	.140	.	.669	.120
	N			38	38	38	38	35
	PHA diameters ratio after/before	Correlation		.222	.106	-.072	1.000	.198
		Coefficient						

		Sig. (2-tailed)	.180	.527	.669	.	.254
		N	38	38	38	38	35
RGEA diameters ratio after/before	Correlation		-.059	-.059	.268	.198	1.000
	Coefficient						
	Sig. (2-tailed)		.736	.737	.120	.254	.
	N		35	35	35	35	35

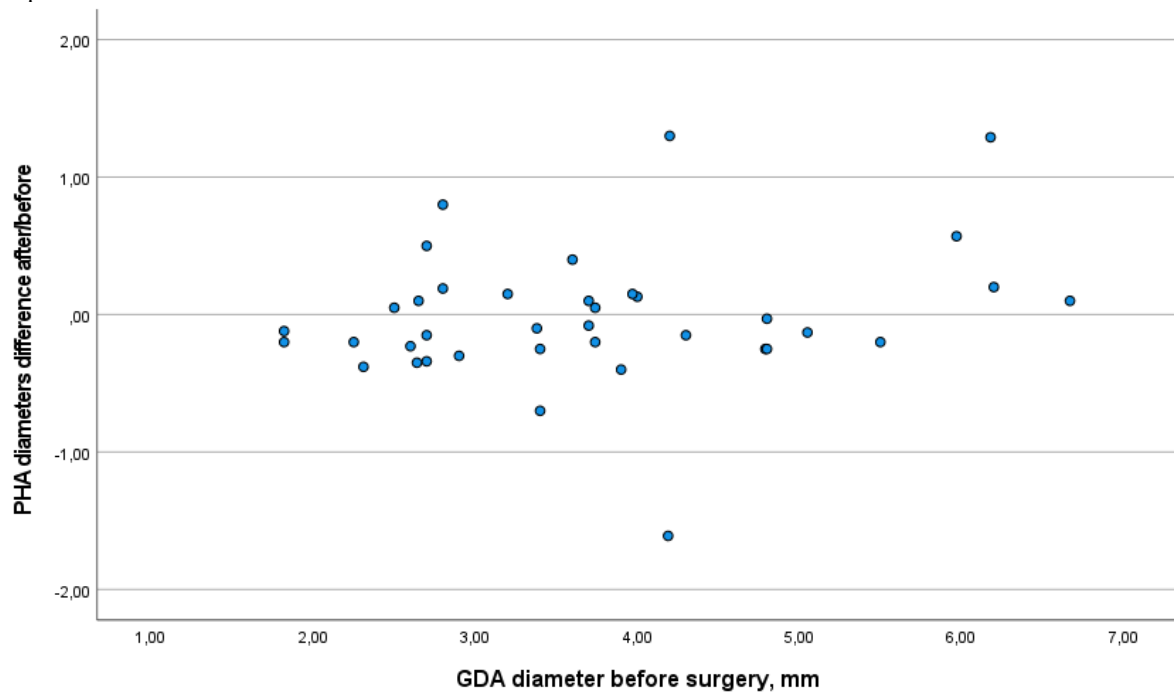
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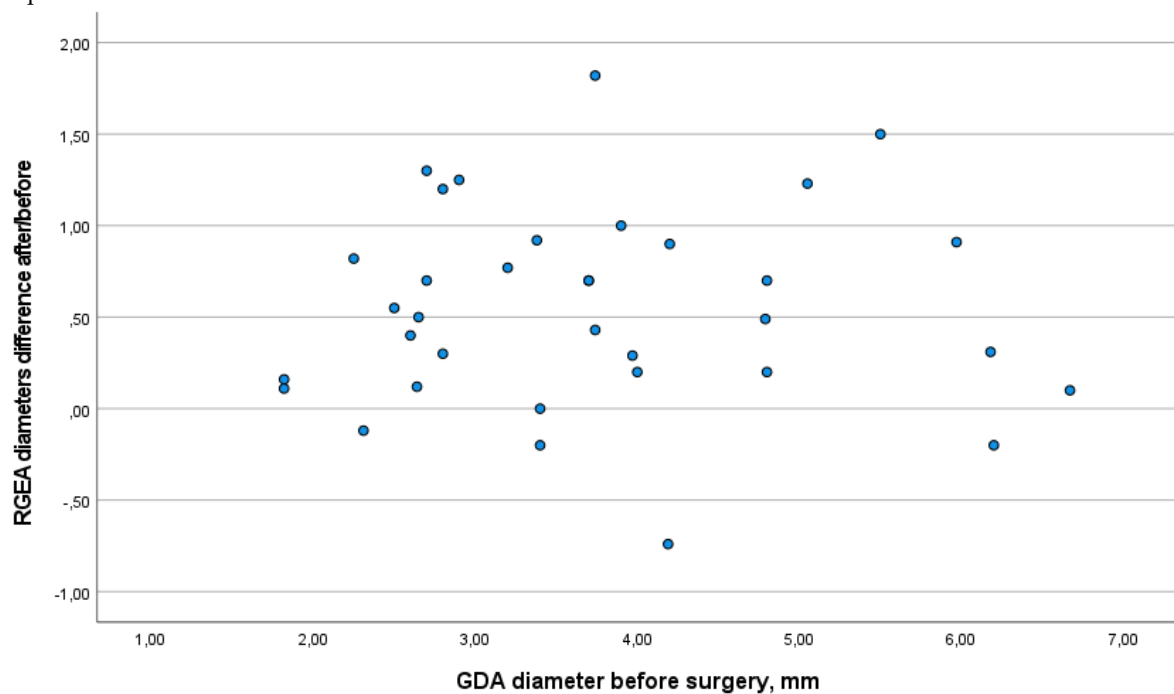
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Graph



Correlations

Correlations				
GDA diameter before surgery. mm	GDA diameters difference after/before	PDA diameters difference after/before	PHA diameters difference after/before	RGEA diameters difference after/before

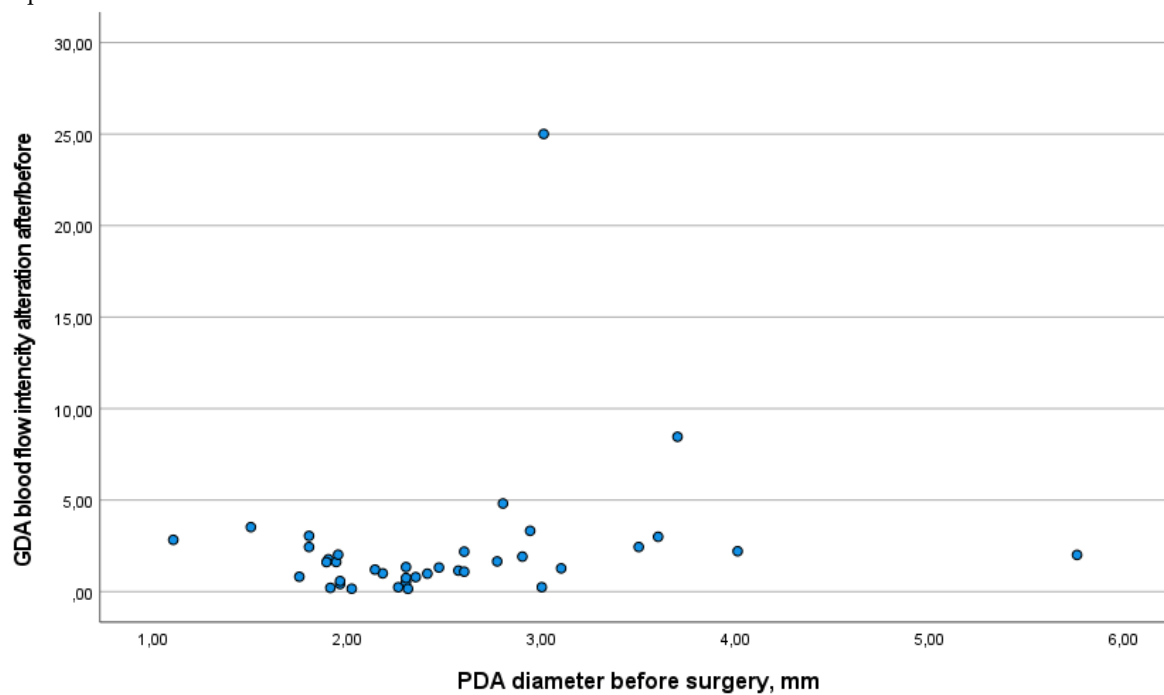
GDA diameter before surgery. mm		Pearson	1	-.404	.312	.234	-.001
		Correlation					
		Sig. (2-tailed)		.012	.057	.157	.994
		N	38	38	38	38	35
GDA diameters difference after/before		Pearson	-.404	1	-.187	.176	-.055
		Correlation					
		Sig. (2-tailed)	.012		.261	.290	.752
		N	38	38	38	38	35
PDA diameters difference after/before		Pearson	.312	-.187	1	-.126	.241
		Correlation					
		Sig. (2-tailed)	.057	.261		.450	.163
		N	38	38	38	38	35
PHA diameters difference after/before		Pearson	.234	.176	-.126	1	.349
		Correlation					
		Sig. (2-tailed)	.157	.290	.450		.040
		N	38	38	38	38	35
RGEA diameters difference after/before		Pearson	-.001	-.055	.241	.349	1
		Correlation					
		Sig. (2-tailed)	.994	.752	.163	.040	
		N	35	35	35	35	35

Nonparametric Correlations

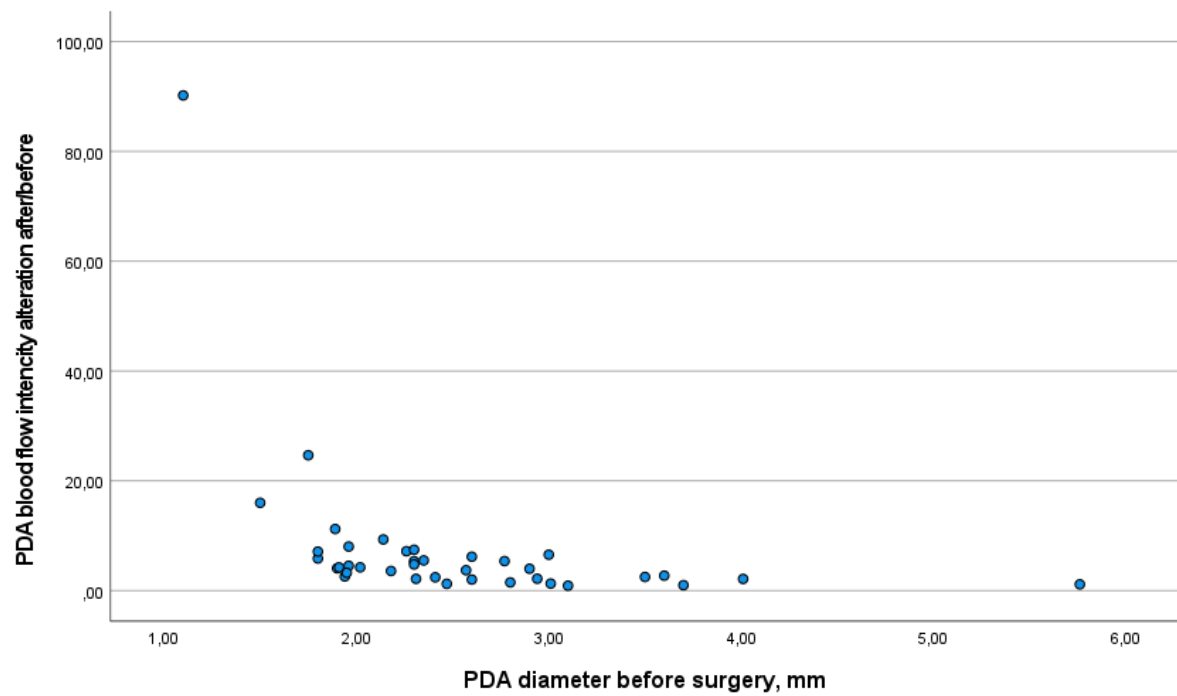
				Correlations				
				GDA diameter before surgery. mm	GDA diameters difference after/befo re	PDA diameters difference after/befo re	PHA diameters difference after/befo re	RGEA diameters difference after/befor e
Spearman's rho	GDA before mm	diameter surgery.	Correlation	1.000	-.350	.343	.237	.051
			Coefficient					
			Sig. (2-tailed)	.	.031	.035	.151	.770
		N	38	38	38	38	35	
	GDA difference after/before	diameters	Correlation	-.350	1.000	-.166	.057	-.095
			Coefficient					
			Sig. (2-tailed)	.031	.	.318	.732	.587
		N	38	38	38	38	35	
	PDA difference after/before	diameters	Correlation	.343	-.166	1.000	-.002	.255
			Coefficient					
Sig. (2-tailed)			.035	.318	.	.990	.139	
	N	38	38	38	38	35		
		Correlation	.237	.057	-.002	1.000	.235	
		Coefficient						

PHA	diameters	Sig. (2-tailed)	.151	.732	.990	.	.174
difference		N	38	38	38	38	35
after/before							
RGEA	diameters	Correlation	.051	-.095	.255	.235	1.000
difference		Coefficient					
after/before		Sig. (2-tailed)	.770	.587	.139	.174	.
		N	35	35	35	35	35

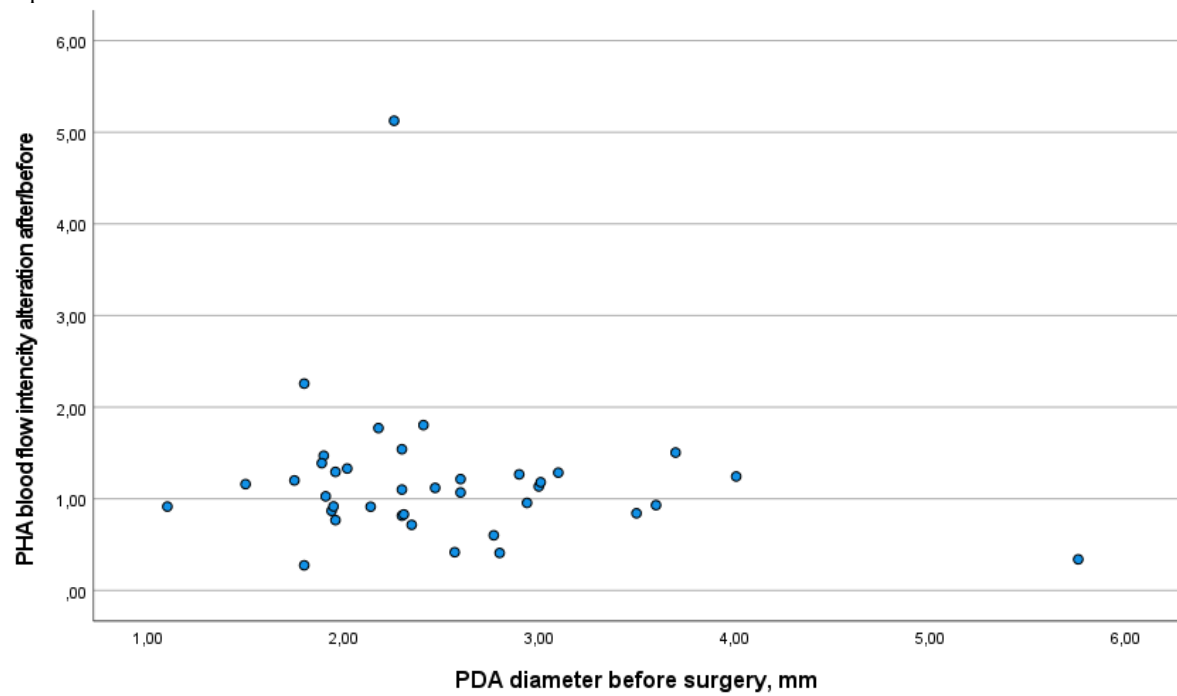
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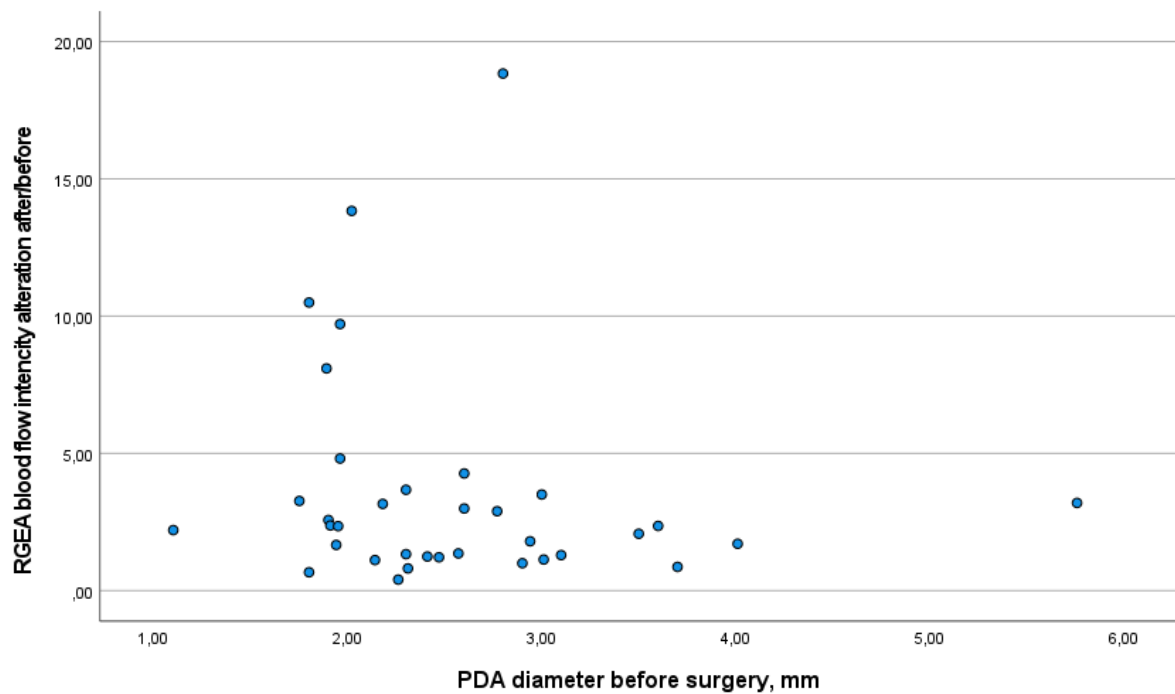
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Graph



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Correlations

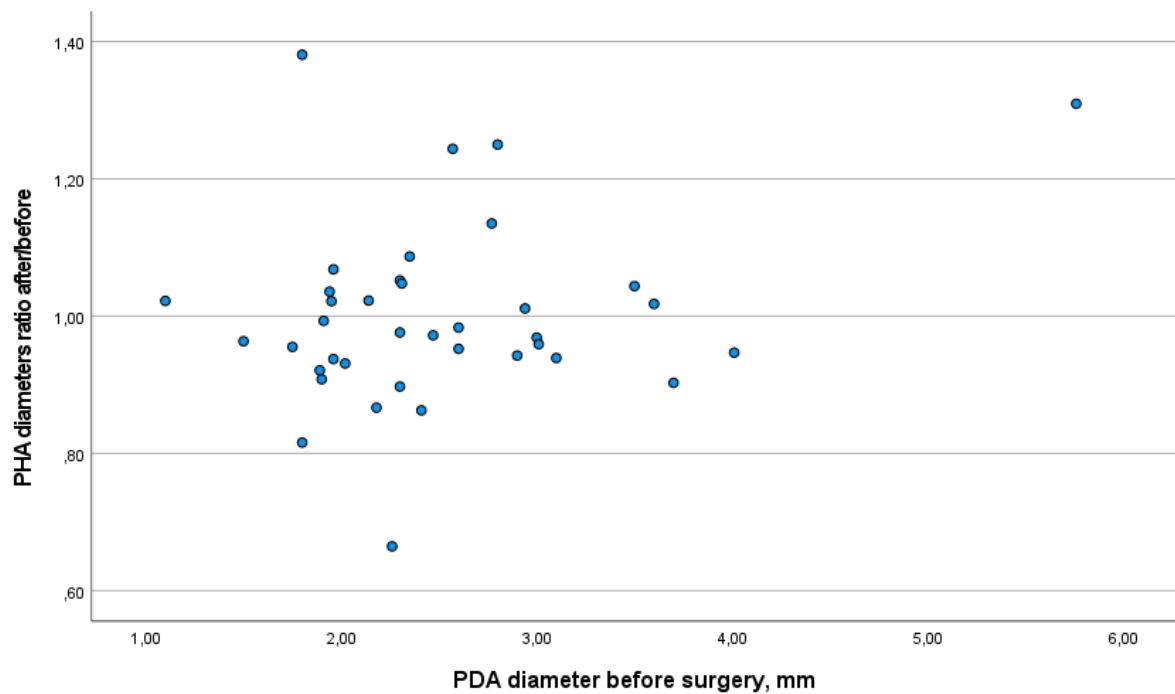
		Correlations				
		PDA diameter before surgery, mm	GDA blood flow intensity alteration after/before	PDA blood flow intensity alteration after/before	PHA blood flow intensity alteration after/before	RGEA blood flow intensity alteration after/before
PDA diameter before surgery, mm	Pearson	1	.198	-.413	-.161	-.144
	Correlation					
	Sig. (2-tailed)		.234	.010	.333	.409
	N	38	38	38	38	35
GDA blood flow intensity alteration after/before	Pearson	.198	1	-.042	-.057	-.057
	Correlation					
	Sig. (2-tailed)	.234		.800	.735	.744
	N	38	38	38	38	35
PDA blood flow intensity alteration after/before	Pearson	-.413	-.042	1	-.015	-.033
	Correlation					
	Sig. (2-tailed)	.010	.800		.926	.851
	N	38	38	38	38	35
PHA blood flow intensity alteration after/before	Pearson	-.161	-.057	-.015	1	-.246
	Correlation					
	Sig. (2-tailed)	.333	.735	.926		.155
	N	38	38	38	38	35
RGEA blood flow intensity alteration after/before	Pearson	-.144	-.057	-.033	-.246	1
	Correlation					
	Sig. (2-tailed)	.409	.744	.851	.155	

N	35	35	35	35	35
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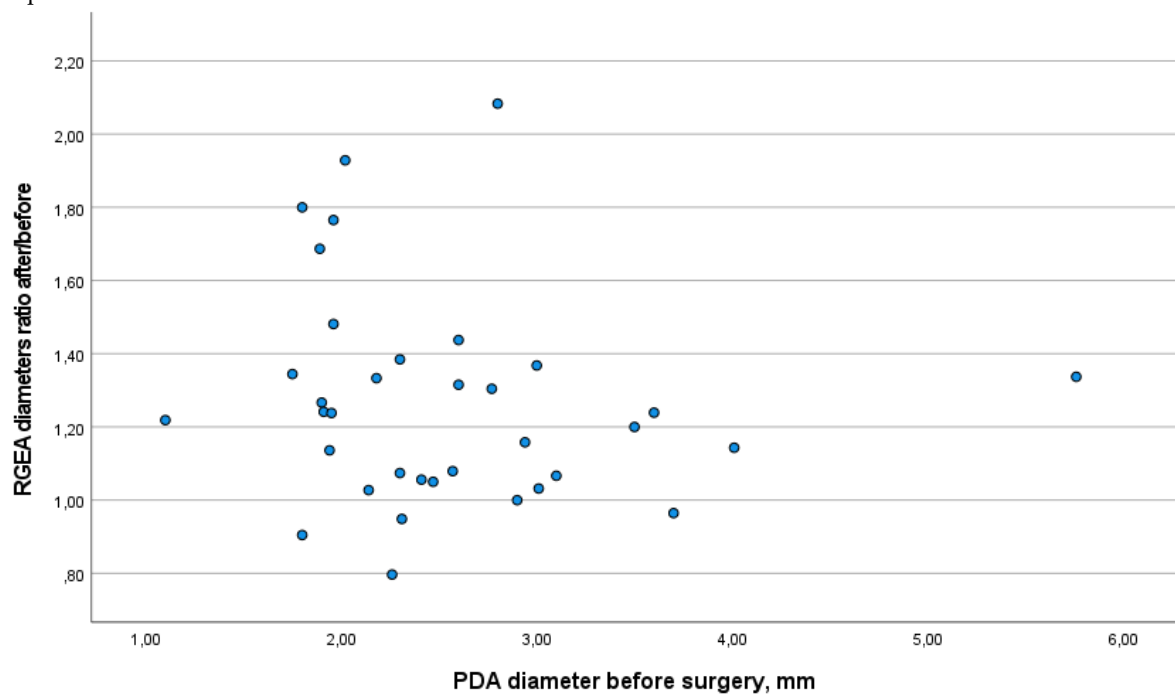
Nonparametric Correlations

				Correlations				
				PDA diameter before surgery. mm	GDA blood flow intensity alteration after/befo re	PDA blood flow intensity alteration after/befo re	PHA blood flow intensity alteration after/befo re	RGEA blood flow intensity alteration after/befor e
Spearman's rho	PDA before mm	diameter surgery.	Correlation	1.000	.227	-.693	-.115	-.207
			Coefficient					
			Sig. (2-tailed)	.	.170	.000	.490	.233
		N	38	38	38	38	35	
	GDA intensity alteration after/before	blood flow	Correlation	.227	1.000	-.246	-.109	-.057
			Coefficient					
			Sig. (2-tailed)	.170	.	.137	.515	.746
		N	38	38	38	38	35	
	PDA intensity alteration after/before	blood flow	Correlation	-.693	-.246	1.000	.072	.268
			Coefficient					
			Sig. (2-tailed)	.000	.137	.	.669	.120
		N	38	38	38	38	35	
	PHA intensity alteration after/before	blood flow	Correlation	-.115	-.109	.072	1.000	-.198
			Coefficient					
			Sig. (2-tailed)	.490	.515	.669	.	.254
	N	38	38	38	38	35		
RGEA intensity alteration after/before	blood flow	Correlation	-.207	-.057	.268	-.198	1.000	
		Coefficient						
		Sig. (2-tailed)	.233	.746	.120	.254	.	
	N	35	35	35	35	35		

Graph



Graph



Correlations

Correlations					
		PDA diameter before surgery. mm	GDA diameters ratio after/before	PDA diameters ratio after/before	PHA diameters ratio after/before
PDA diameter before surgery. mm	Pearson Correlation	1	.269	-.609	.254
					RGEA diameters ratio after/before
					-.141

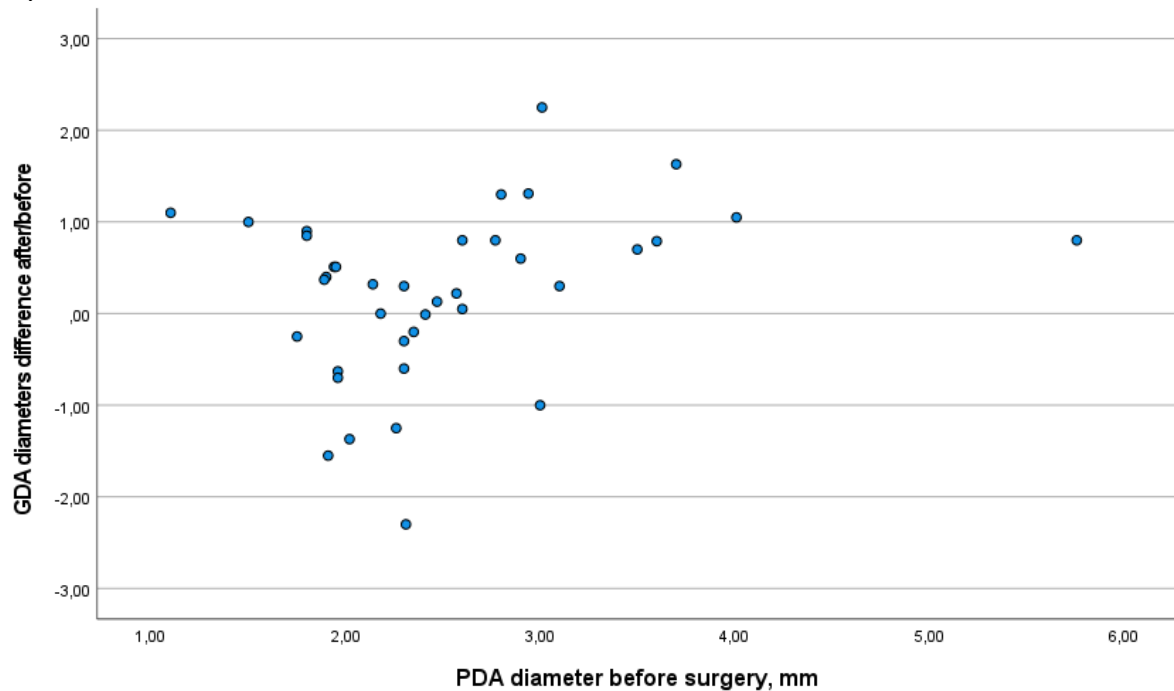
		Sig. (2-tailed)		.102	.000	.123	.419
	N		38	38	38	38	35
GDA diameters ratio after/before	Pearson	.269		1	-.159	.152	-.073
	Correlation						
	Sig. (2-tailed)	.102			.341	.361	.678
	N		38	38	38	38	35
PDA diameters ratio after/before	Pearson	-.609		-.159	1	-.107	.111
	Correlation						
	Sig. (2-tailed)	.000		.341		.522	.524
	N		38	38	38	38	35
PHA diameters ratio after/before	Pearson	.254		.152	-.107	1	.403
	Correlation						
	Sig. (2-tailed)	.123		.361	.522		.016
	N		38	38	38	38	35
RGEA diameters ratio after/before	Pearson	-.141		-.073	.111	.403	1
	Correlation						
	Sig. (2-tailed)	.419		.678	.524	.016	
	N		35	35	35	35	35

Nonparametric Correlations

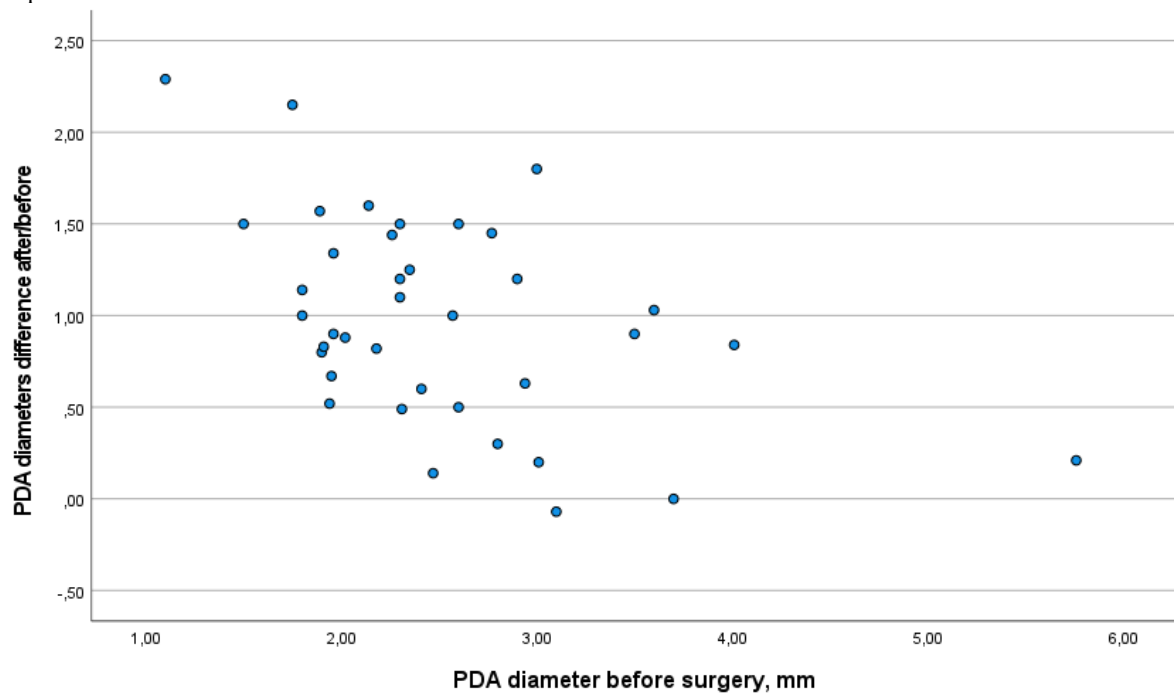
				Correlations				
				PDA diameter before surgery. mm	GDA diameters ratio after/befo re	PDA diameters ratio after/befo re	PHA diameters ratio after/befo re	RGEA diameters ratio after/befor e
Spearman's rho	PDA before mm	diameter	Correlation	1.000	.224	-.693	.115	-.207
		surgery.	Coefficient					
			Sig. (2-tailed)	.	.176	.000	.490	.233
			N	38	38	38	38	35
	GDA ratio after/before	diameters	Correlation	.224	1.000	-.244	.106	-.059
			Coefficient					
			Sig. (2-tailed)	.176	.	.140	.527	.737
			N	38	38	38	38	35
	PDA ratio after/before	diameters	Correlation	-.693	-.244	1.000	-.072	.268
			Coefficient					
			Sig. (2-tailed)	.000	.140	.	.669	.120
			N	38	38	38	38	35
	PHA ratio after/before	diameters	Correlation	.115	.106	-.072	1.000	.198
			Coefficient					
			Sig. (2-tailed)	.490	.527	.669	.	.254
			N					

		N	38	38	38	38	35
RGEA diameters ratio after/before	Correlation		-.207	-.059	.268	.198	1.000
	Coefficient						
	Sig. (2-tailed)		.233	.737	.120	.254	.
		N	35	35	35	35	35

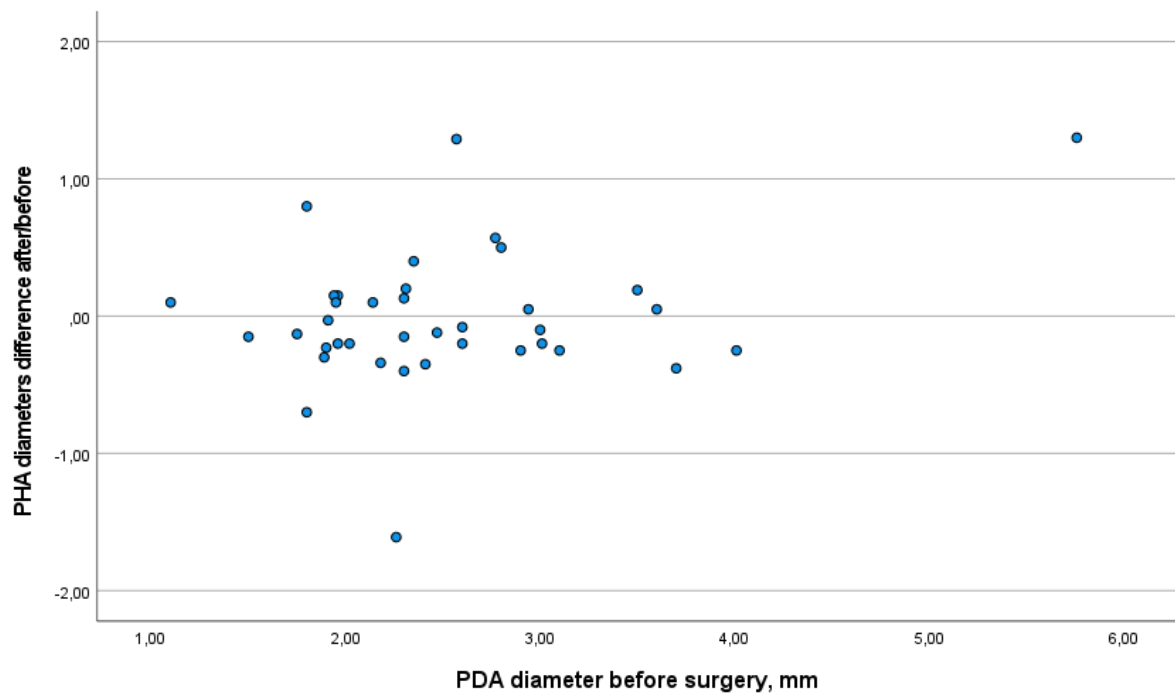
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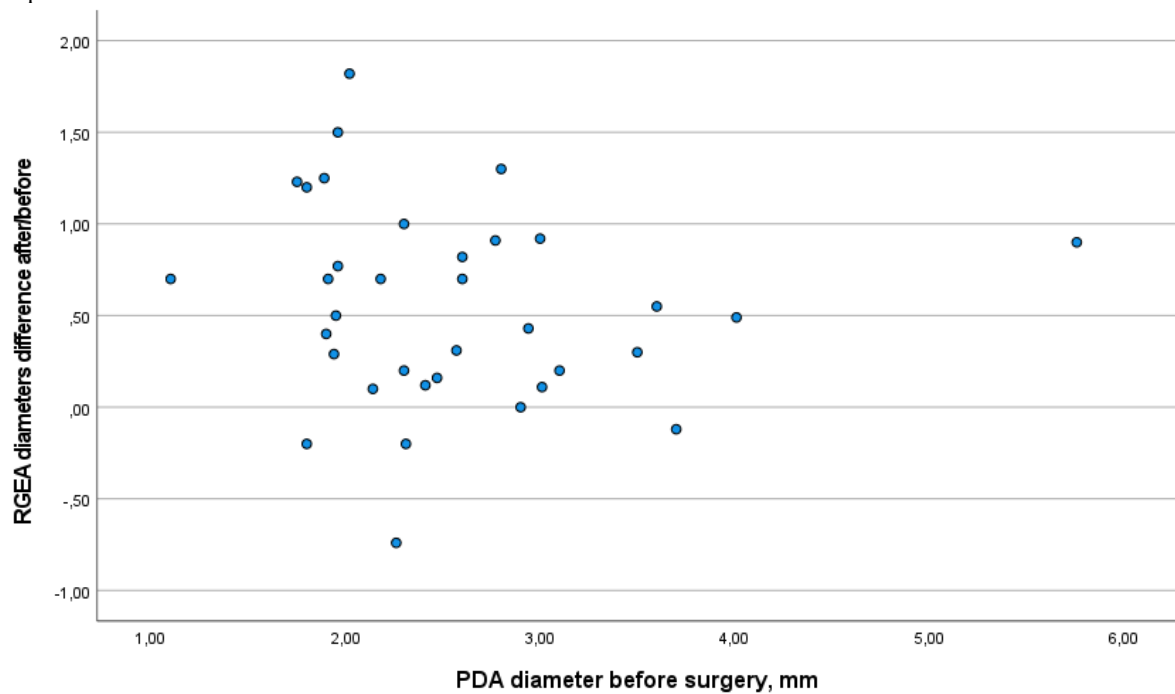
Graph



Graph



Graph



Correlations

Correlations				
PDA diameter before surgery. mm	GDA diameters difference after/before	PDA diameters difference after/before	PHA diameters difference after/before	RGEA diameters difference after/before

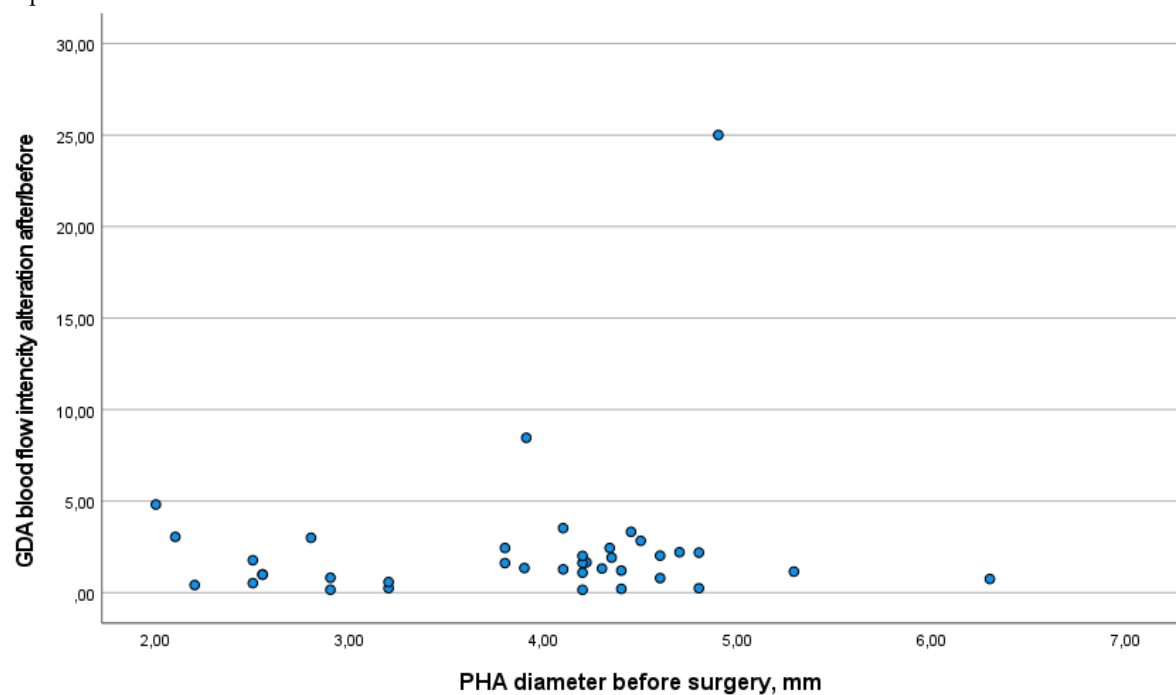
PDA diameter before surgery. mm		Pearson	1	.295	-.477	.294	-.111
		Correlation					
		Sig. (2-tailed)		.072	.002	.073	.526
		N	38	38	38	38	35
GDA difference after/before	diameters	Pearson	.295	1	-.187	.176	-.055
		Correlation					
		Sig. (2-tailed)	.072		.261	.290	.752
		N	38	38	38	38	35
PDA difference after/before	diameters	Pearson	-.477	-.187	1	-.126	.241
		Correlation					
		Sig. (2-tailed)	.002	.261		.450	.163
		N	38	38	38	38	35
PHA difference after/before	diameters	Pearson	.294	.176	-.126	1	.349
		Correlation					
		Sig. (2-tailed)	.073	.290	.450		.040
		N	38	38	38	38	35
RGEA difference after/before	diameters	Pearson	-.111	-.055	.241	.349	1
		Correlation					
		Sig. (2-tailed)	.526	.752	.163	.040	
		N	35	35	35	35	35

Nonparametric Correlations

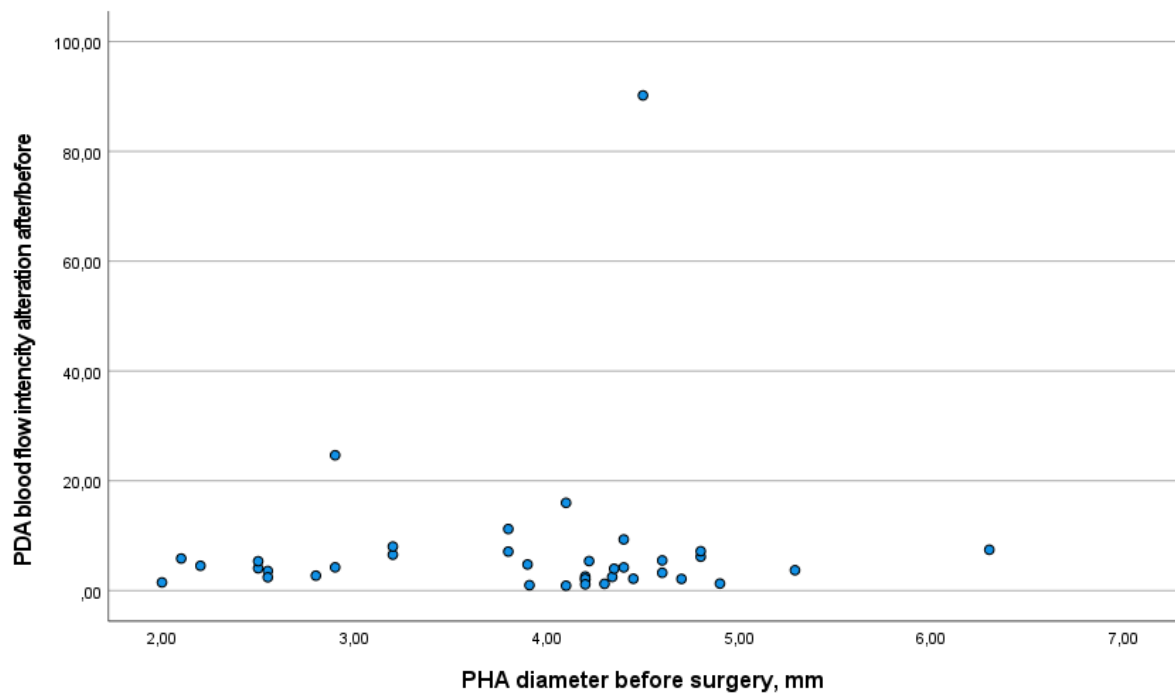
			Correlations						
				PDA diameter before surgery. mm	GDA diameters difference after/befo re	PDA diameters difference after/befo re	PHA diameters difference after/befo re	RGEA diameters difference after/befor e	
Spearman's rho	PDA before mm	diameter surgery.	Correlation	1.000	.250	-.430	.065	-.201	
			Coefficient						
			Sig. (2-tailed)	.	.130	.007	.697	.246	
				N	38	38	38	38	35
	GDA difference after/before	diameters	Correlation	.250	1.000	-.166	.057	-.095	
			Coefficient						
			Sig. (2-tailed)	.130	.	.318	.732	.587	
				N	38	38	38	38	35
	PDA difference after/before	diameters	Correlation	-.430	-.166	1.000	-.002	.255	
			Coefficient						
			Sig. (2-tailed)	.007	.318	.	.990	.139	
				N	38	38	38	38	35

PHA diameters difference after/before	Correlation Coefficient	Correlation	.065	.057	-.002	1.000	.235
		Sig. (2-tailed)	.697	.732	.990	.	.174
		N	38	38	38	38	35
RGEA diameters difference after/before	Correlation Coefficient	Correlation	-.201	-.095	.255	.235	1.000
		Sig. (2-tailed)	.246	.587	.139	.174	.
		N	35	35	35	35	35

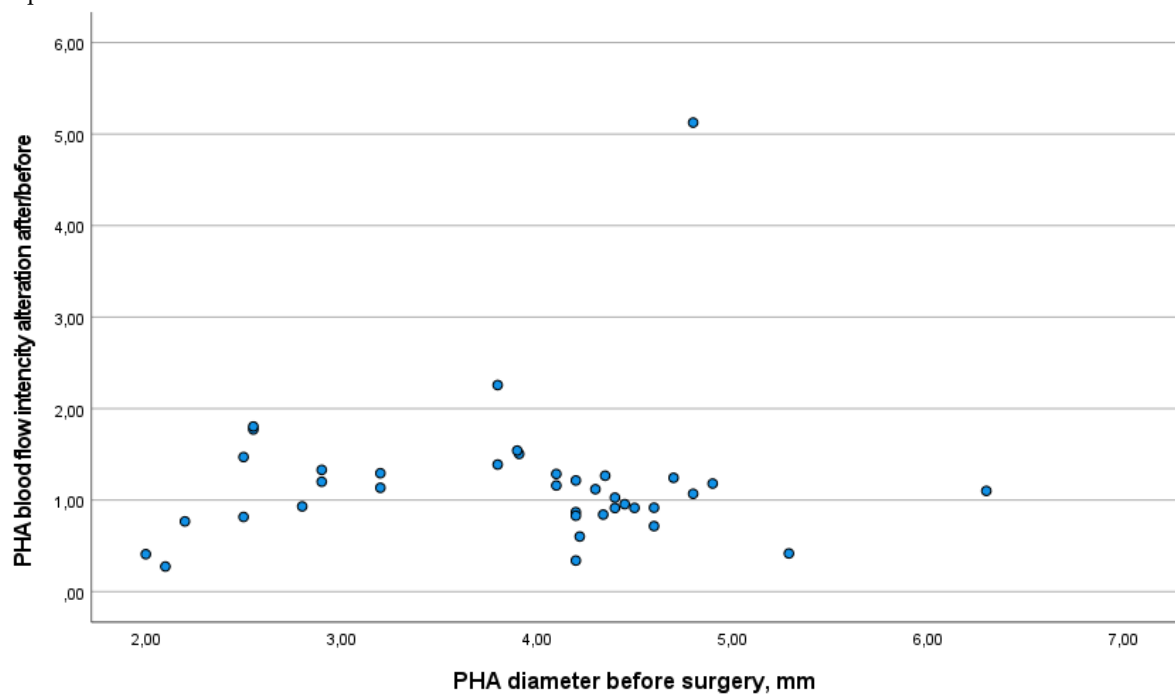
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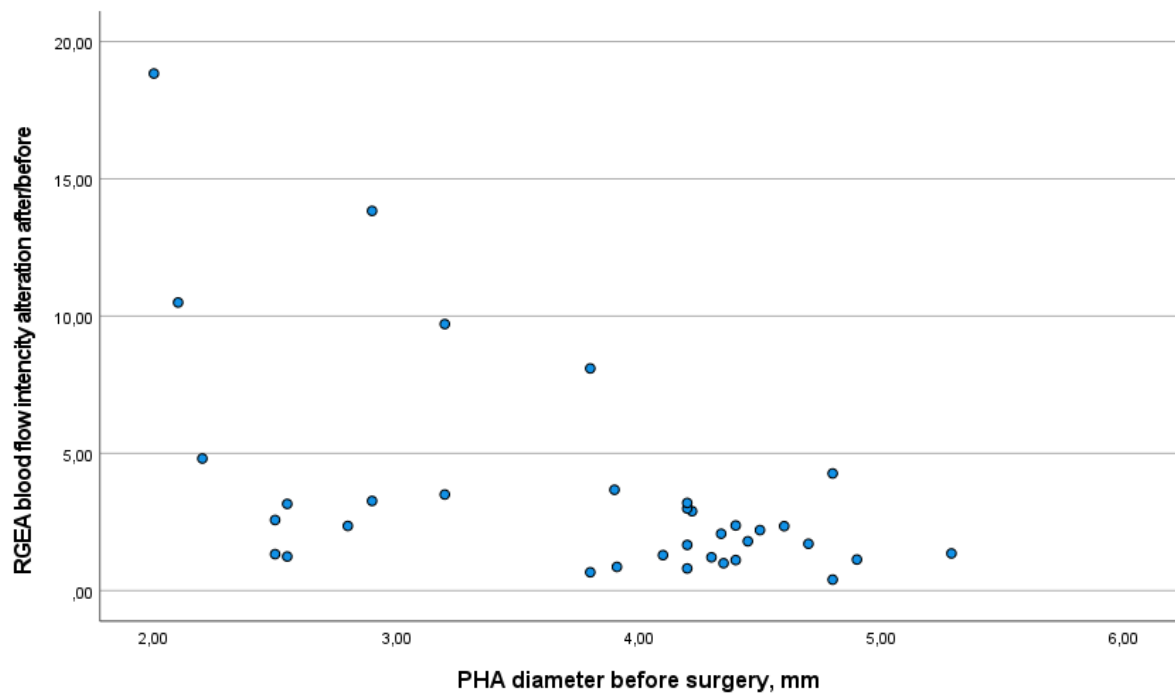
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Graph



Graph



Correlations

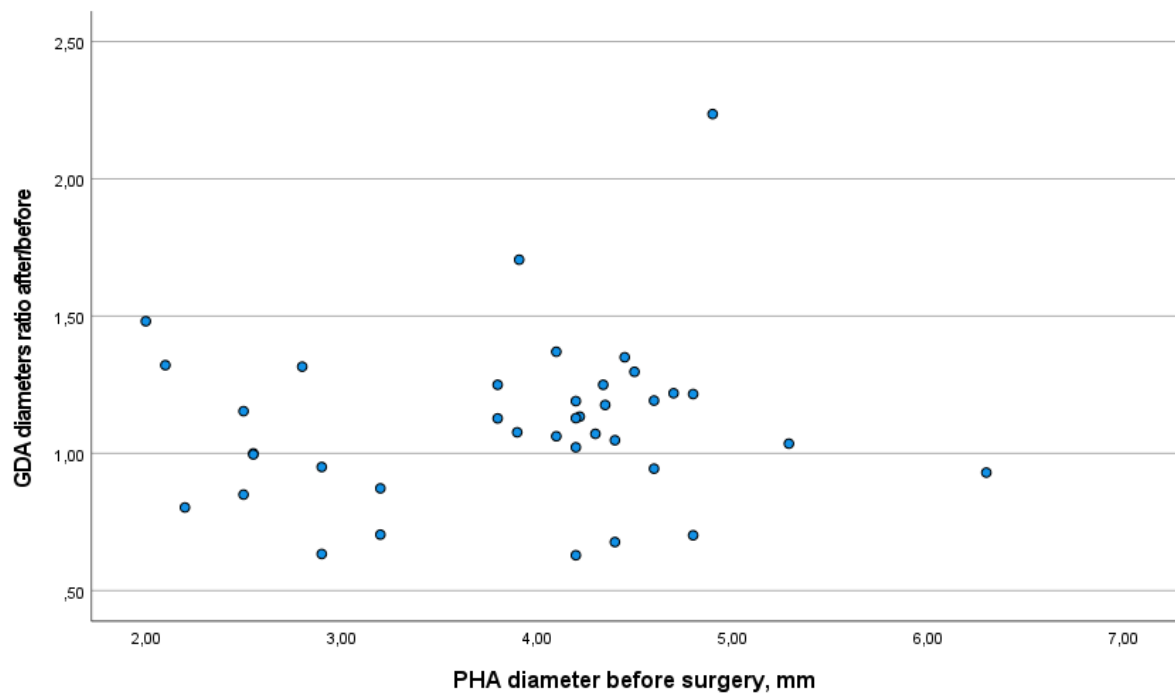
		Correlations				
		PHA diameter before surgery. mm	GDA blood flow intensity alteration after/before	PDA blood flow intensity alteration after/before	PHA blood flow intensity alteration after/before	RGEA blood flow intensity alteration after/before
PHA diameter before surgery. mm	Pearson	1	.142	.078	.096	-.537
	Correlation					
	Sig. (2-tailed)		.396	.640	.566	.001
	N	38	38	38	38	35
GDA blood flow intensity alteration after/before	Pearson	.142	1	-.042	-.057	-.057
	Correlation					
	Sig. (2-tailed)	.396		.800	.735	.744
	N	38	38	38	38	35
PDA blood flow intensity alteration after/before	Pearson	.078	-.042	1	-.015	-.033
	Correlation					
	Sig. (2-tailed)	.640	.800		.926	.851
	N	38	38	38	38	35
PHA blood flow intensity alteration after/before	Pearson	.096	-.057	-.015	1	-.246
	Correlation					
	Sig. (2-tailed)	.566	.735	.926		.155
	N	38	38	38	38	35
RGEA blood flow intensity alteration after/before	Pearson	-.537	-.057	-.033	-.246	1
	Correlation					
	Sig. (2-tailed)	.001	.744	.851	.155	
	N	38	38	38	38	35

N	35	35	35	35	35
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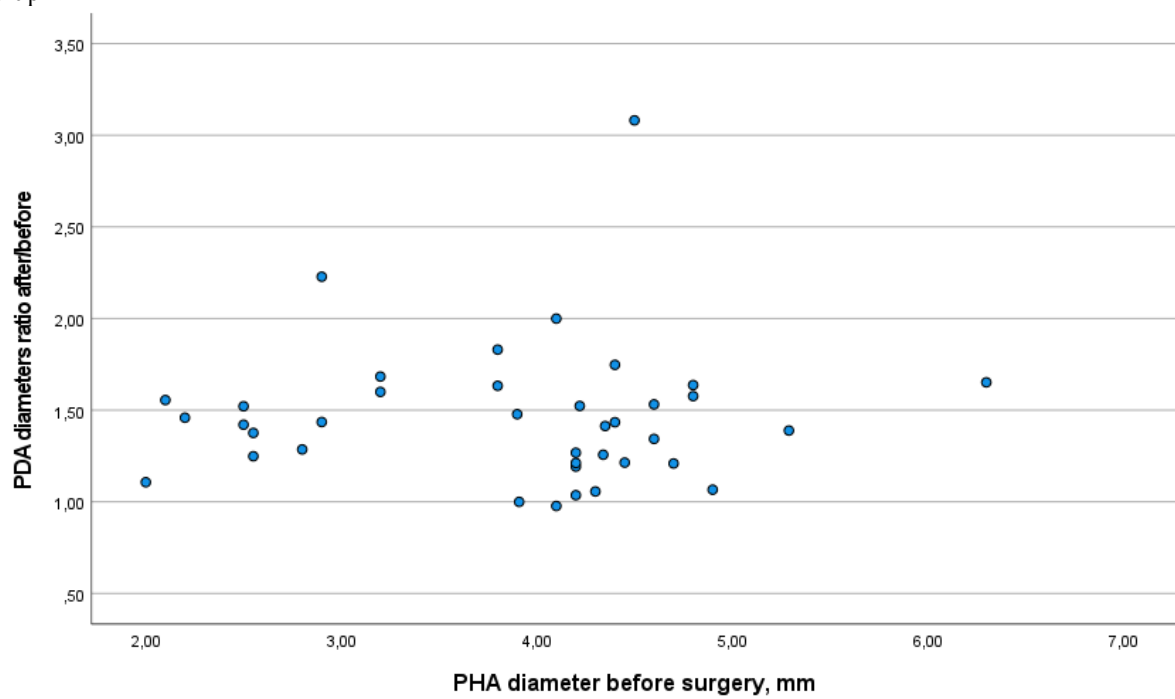
Nonparametric Correlations

			Correlations				
			PHA diameter before surgery. mm	GDA blood flow intensity alteration after/befo re	PDA blood flow intensity alteration after/befo re	PHA blood flow intensity alteration after/befo re	RGEA blood flow intensity alteration after/befo re
Spearman's rho	PHA diameter before surgery. mm	Correlation	1.000	.074	-.011	-.101	-.465
		Coefficient					
		Sig. (2-tailed)	.	.658	.947	.545	.005
	N		38	38	38	38	35
	GDA blood flow intensity alteration after/before	Correlation	.074	1.000	-.246	-.109	-.057
		Coefficient					
		Sig. (2-tailed)	.658	.	.137	.515	.746
	N		38	38	38	38	35
	PDA blood flow intensity alteration after/before	Correlation	-.011	-.246	1.000	.072	.268
		Coefficient					
		Sig. (2-tailed)	.947	.137	.	.669	.120
	N		38	38	38	38	35
	PHA blood flow intensity alteration after/before	Correlation	-.101	-.109	.072	1.000	-.198
		Coefficient					
		Sig. (2-tailed)	.545	.515	.669	.	.254
	N		38	38	38	38	35
	RGEA blood flow intensity alteration after/before	Correlation	-.465	-.057	.268	-.198	1.000
		Coefficient					
		Sig. (2-tailed)	.005	.746	.120	.254	.
	N		35	35	35	35	35

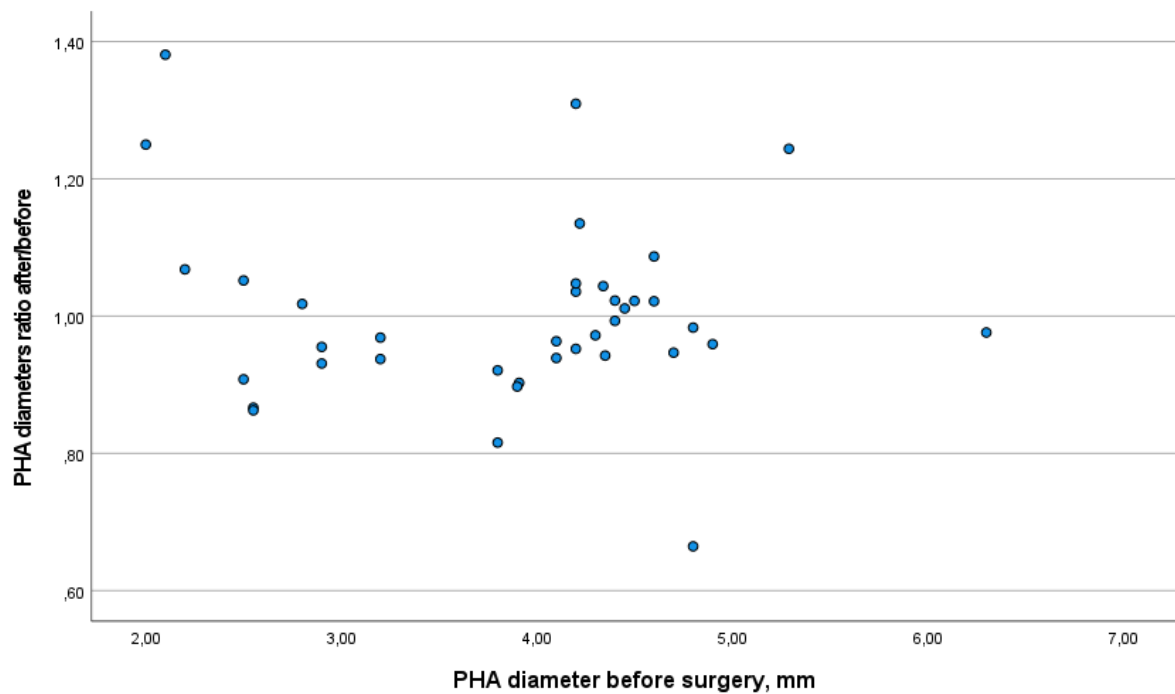
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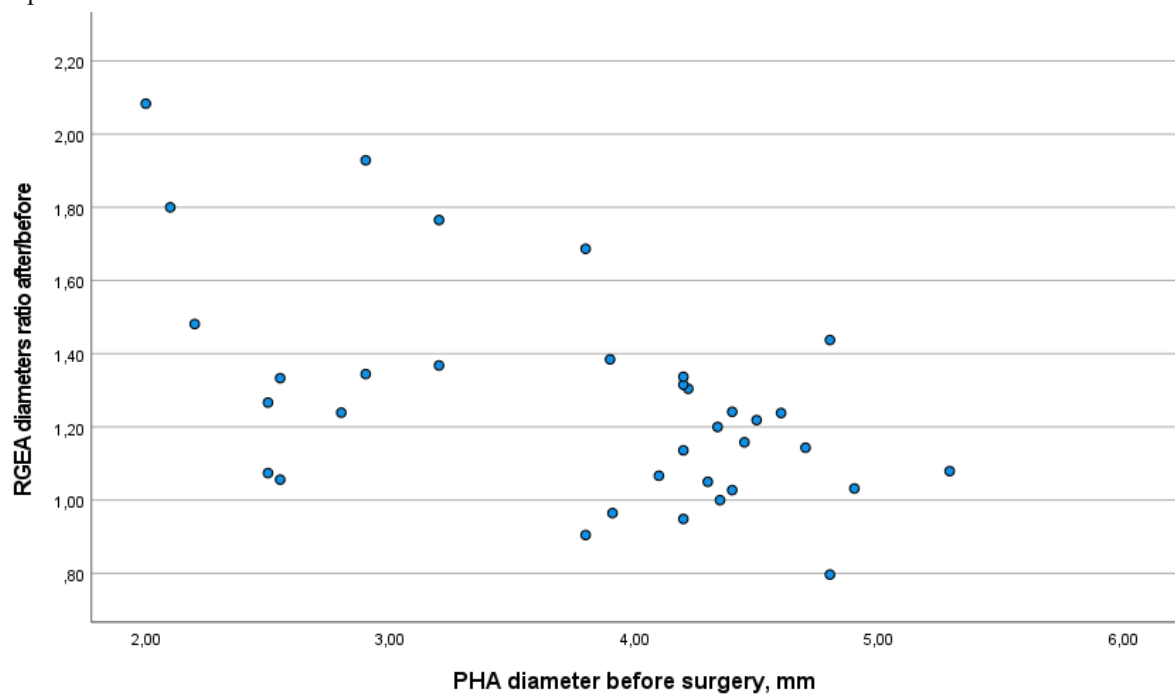
Graph



Graph



Graph



Correlations

Correlations					
		PHA diameter before surgery. mm	GDA diameters ratio after/before	PDA diameters ratio after/before	PHA diameters ratio after/before
PHA diameter before surgery. mm	Pearson Correlation	1	.110	.029	-.120
					-.546

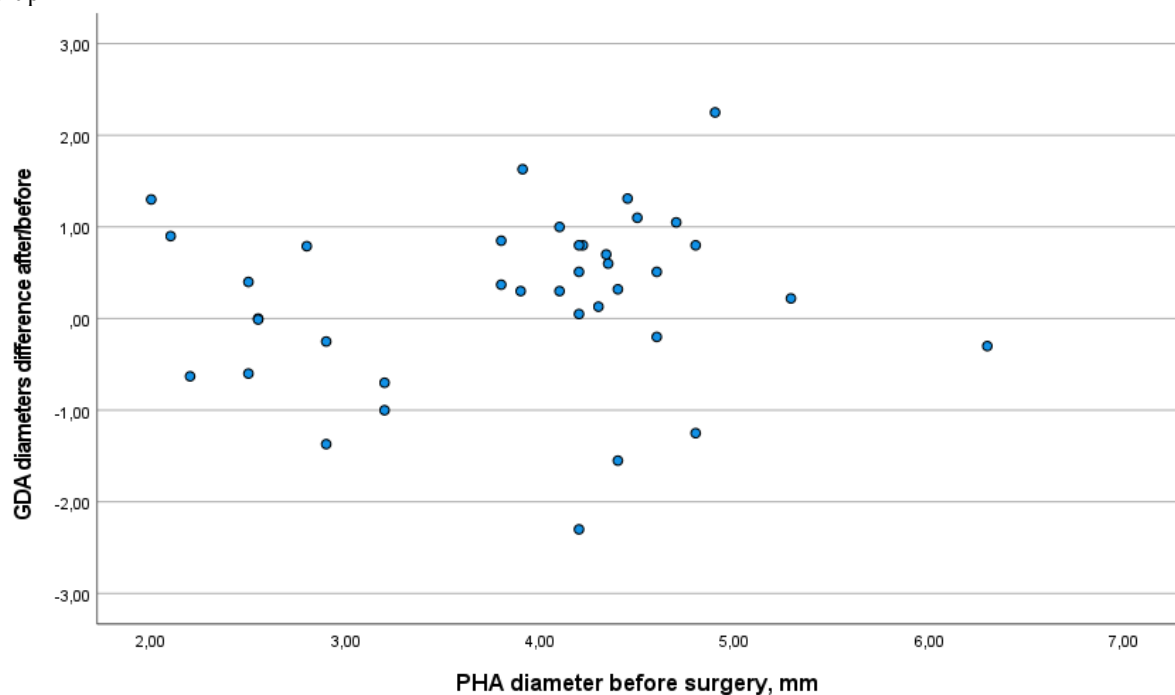
		Sig. (2-tailed)		.509	.864	.475	.001
	N		38	38	38	38	35
GDA diameters ratio after/before	Pearson		.110	1	-.159	.152	-.073
	Correlation						
	Sig. (2-tailed)		.509		.341	.361	.678
	N		38	38	38	38	35
PDA diameters ratio after/before	Pearson		.029	-.159	1	-.107	.111
	Correlation						
	Sig. (2-tailed)		.864	.341		.522	.524
	N		38	38	38	38	35
PHA diameters ratio after/before	Pearson		-.120	.152	-.107	1	.403
	Correlation						
	Sig. (2-tailed)		.475	.361	.522		.016
	N		38	38	38	38	35
RGEA diameters ratio after/before	Pearson		-.546	-.073	.111	.403	1
	Correlation						
	Sig. (2-tailed)		.001	.678	.524	.016	
	N		35	35	35	35	35

Nonparametric Correlations

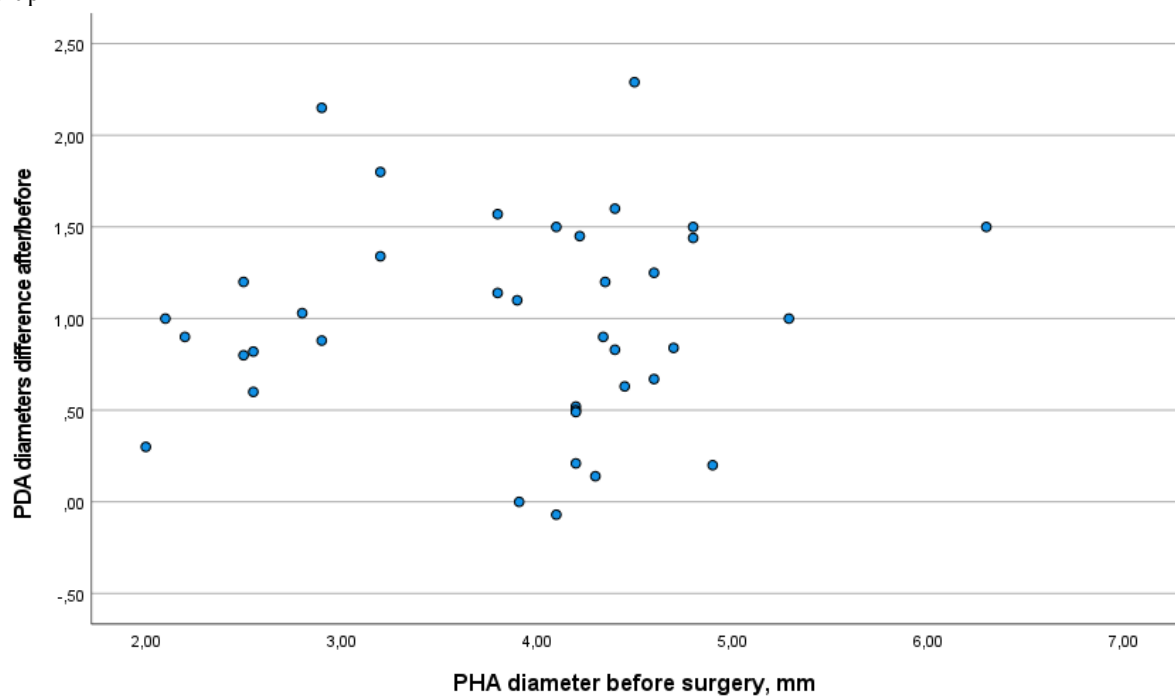
				Correlations				
				PHA diameter before surgery. mm	GDA diameters ratio after/befo re	PDA diameters ratio after/befo re	PHA diameters ratio after/befo re	RGEA diameters ratio after/befor e
Spearman's rho	PHA before mm	diameter surgery.	Correlation	1.000	.073	-.011	.101	-.465
			Coefficient					
			Sig. (2-tailed)	.	.663	.947	.545	.005
			N	38	38	38	38	35
	GDA ratio after/before	diameters	Correlation	.073	1.000	-.244	.106	-.059
			Coefficient					
			Sig. (2-tailed)	.663	.	.140	.527	.737
			N	38	38	38	38	35
	PDA ratio after/before	diameters	Correlation	-.011	-.244	1.000	-.072	.268
			Coefficient					
			Sig. (2-tailed)	.947	.140	.	.669	.120
			N	38	38	38	38	35
	PHA ratio after/before	diameters	Correlation	.101	.106	-.072	1.000	.198
			Coefficient					
			Sig. (2-tailed)	.545	.527	.669	.	.254
N			38	38	38	38	35	

RGEA diameters ratio after/before	Correlation	-.465	-.059	.268	.198	1.000
	Coefficient					
	Sig. (2-tailed)	.005	.737	.120	.254	.
	N	35	35	35	35	35

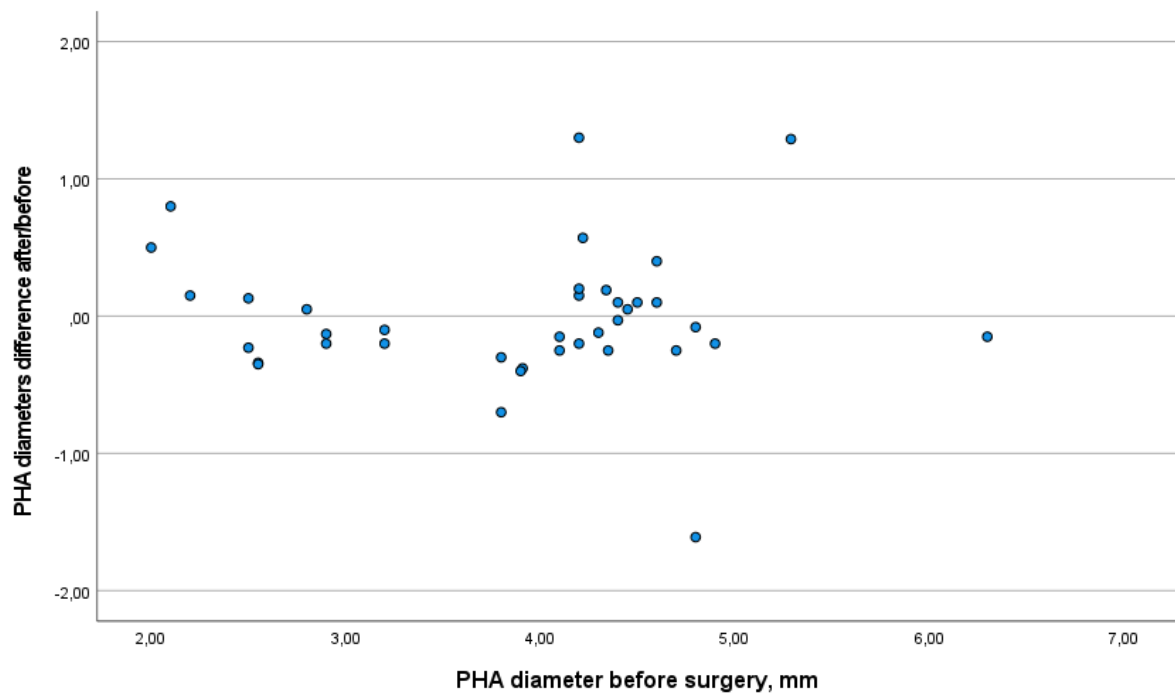
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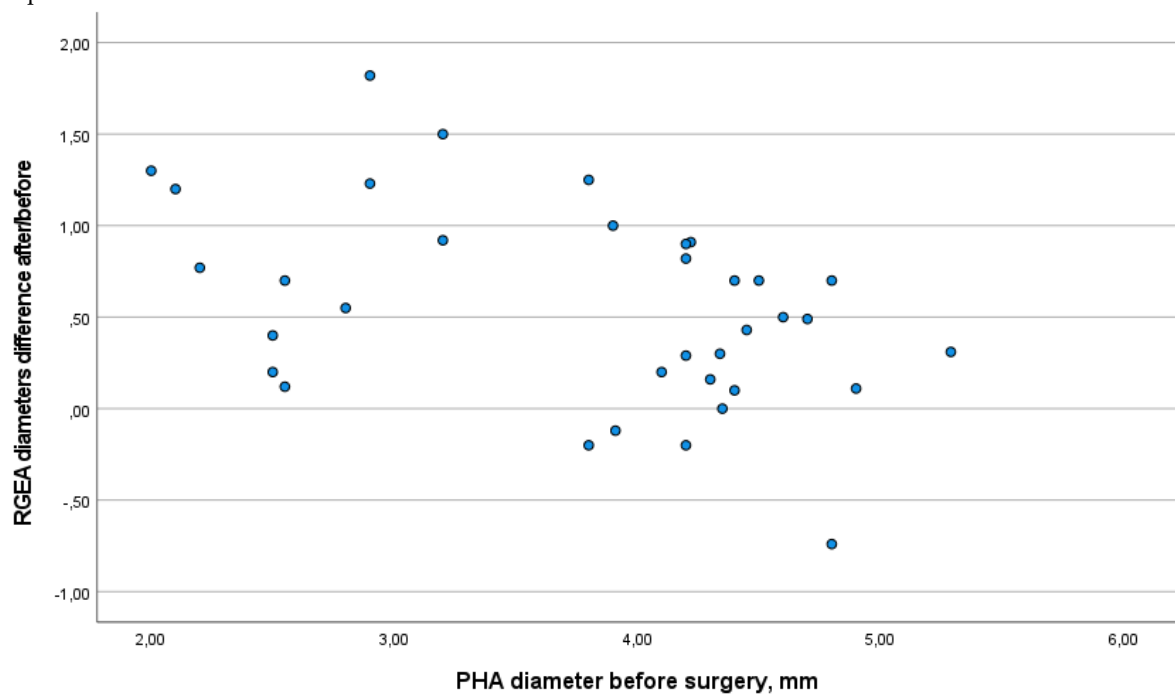
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Graph



Graph



Correlations

Correlations				
PHA diameter before surgery. mm	GDA diameters difference after/before	PDA diameters difference after/before	PHA diameters difference after/before	RGEA diameters difference after/before

PHA diameter before surgery. mm		Pearson	1	.105	.059	-.032	-.433
		Correlation					
		Sig. (2-tailed)		.529	.724	.851	.009
		N	38	38	38	38	35
GDA diameters difference after/before		Pearson	.105	1	-.187	.176	-.055
		Correlation					
		Sig. (2-tailed)	.529		.261	.290	.752
		N	38	38	38	38	35
PDA diameters difference after/before		Pearson	.059	-.187	1	-.126	.241
		Correlation					
		Sig. (2-tailed)	.724	.261		.450	.163
		N	38	38	38	38	35
PHA diameters difference after/before		Pearson	-.032	.176	-.126	1	.349
		Correlation					
		Sig. (2-tailed)	.851	.290	.450		.040
		N	38	38	38	38	35
RGEA diameters difference after/before		Pearson	-.433	-.055	.241	.349	1
		Correlation					
		Sig. (2-tailed)	.009	.752	.163	.040	
		N	35	35	35	35	35

Nonparametric Correlations

				Correlations				
				PHA diameter before surgery. mm	GDA diameters difference after/befo re	PDA diameters difference after/befo re	PHA diameters difference after/befo re	RGEA diameters difference after/befor e
Spearman's rho	PHA before mm	diameter surgery.	Correlation	1.000	.132	.099	.056	-.386
			Coefficient					
			Sig. (2-tailed)	.	.430	.555	.736	.022
			N	38	38	38	38	35
	GDA diameters difference after/before		Correlation	.132	1.000	-.166	.057	-.095
			Coefficient					
			Sig. (2-tailed)	.430	.	.318	.732	.587
			N	38	38	38	38	35
	PDA diameters difference after/before		Correlation	.099	-.166	1.000	-.002	.255
			Coefficient					
Sig. (2-tailed)			.555	.318	.	.990	.139	
N			38	38	38	38	35	
			Correlation	.056	.057	-.002	1.000	.235
			Coefficient					

PHA diameters difference after/before	Sig. (2-tailed)	.736	.732	.990	.	.174
	N	38	38	38	38	35
RGEA diameters difference after/before	Correlation Coefficient	-.386	-.095	.255	.235	1.000
	Sig. (2-tailed)	.022	.587	.139	.174	.
	N	35	35	35	35	35

T-Test

Group Statistics					
Type of parenchimal blood flow	N	Mean	Std. Deviation	Std. Error Mean	
GDA blood flow intensity alteration after/before collateral	12	1.4574	.79469	.22941	
main	26	2.7957	4.86987	.95506	
PDA blood flow intensity alteration after/before collateral	12	5.4721	2.72061	.78537	
main	26	8.1805	17.50659	3.43333	
PHA blood flow intensity alteration after/before collateral	12	1.4046	1.27309	.36751	
main	26	1.0835	.37297	.07315	
RGEA blood flow intensity alteration after/before collateral	12	3.5111	3.04395	.87871	
main	23	3.5725	4.49047	.93633	
GDA diameters ratio after/before collateral	12	1.0631	.17571	.05072	
main	26	1.1296	.34891	.06843	
PDA diameters ratio after/before collateral	12	1.4979	.18635	.05379	
main	26	1.4505	.44903	.08806	
PHA diameters ratio after/before collateral	12	1.0003	.18948	.05470	
main	26	1.0002	.10093	.01979	
RGEA diameters ratio after/before collateral	12	1.2844	.28779	.08308	
main	23	1.2608	.30165	.06290	
GDA diameters difference after/before collateral	12	.2475	.66501	.19197	
main	26	.2254	1.04274	.20450	
PDA diameters difference after/before collateral	12	1.1267	.35758	.10322	
main	26	.9115	.62897	.12335	
PHA diameters difference after/before collateral	12	-.0208	.71974	.20777	
main	26	-.0112	.36899	.07237	
RGEA diameters difference after/before collateral	12	.5175	.54423	.15711	
main	23	.5700	.55288	.11528	

Independent Samples Test

			Levene's Test for Equality of Variances		t-test for Equality of Means						
			F	Sig.	t	df	Sig. (2- tailed)	Mean Differe nce	Std. Error Differe nce	95% Confidence Interval of the Difference	
										Lower	Upper
GDA flow intensity alteration after/before	blood	Equal variances assumed	2.139	.152	-.939	36	.354	- 1.33825	1.42456	- 4.22739	1.55088
		Equal variances not assumed			- 1.36 2	27.7 58	.184	- 1.33825	.98223	- 3.35104	.67453
PDA flow intensity alteration after/before	blood	Equal variances assumed	1.853	.182	-.529	36	.600	- 2.70841	5.11835	- 13.0889 1	7.67209
		Equal variances not assumed			-.769	27.5 14	.448	- 2.70841	3.52201	- 9.92866	4.51185
PHA flow intensity alteration after/before	blood	Equal variances assumed	5.773	.022	1.19 6	36	.240	.32109	.26848	-.22342	.86559
		Equal variances not assumed			.857	11.8 81	.408	.32109	.37472	-.49626	1.13844
RGEA flow intensity alteration after/before	blood	Equal variances assumed	.203	.655	-.042	33	.966	-.06134	1.44789	- 3.00709	2.88440
		Equal variances not assumed			-.048	30.5 00	.962	-.06134	1.28407	- 2.68197	2.55928
GDA diameters ratio after/before		Equal variances assumed	2.704	.109	-.622	36	.538	-.06655	.10698	-.28352	.15043
		Equal variances not assumed			-.781	35.5 96	.440	-.06655	.08518	-.23936	.10627
PDA diameters		Equal variances assumed	2.465	.125	.350	36	.728	.04744	.13545	-.22726	.32214

ratio after/before	Equal variances not assumed			.460	35.8 07	.648	.04744	.10319	-.16188	.25676
PHA diameters ratio after/before	Equal variances assumed	5.449	.025	.003	36	.998	.00013	.04688	-.09494	.09521
	Equal variances not assumed			.002	13.9 64	.998	.00013	.05817	-.12466	.12492
RGEA diameters ratio after/before	Equal variances assumed	.023	.881	.223	33	.825	.02356	.10580	-.19169	.23881
	Equal variances not assumed			.226	23.3 83	.823	.02356	.10420	-.19180	.23892
GDA diameters difference after/before	Equal variances assumed	2.647	.112	.067	36	.947	.02212	.32928	-.64569	.68992
	Equal variances not assumed			.079	31.9 99	.938	.02212	.28049	-.54922	.59345
PDA diameters difference after/before	Equal variances assumed	2.901	.097	1.10 0	36	.278	.21513	.19549	-.18135	.61161
	Equal variances not assumed			1.33 8	34.1 80	.190	.21513	.16084	-.11168	.54194
PHA diameters difference after/before	Equal variances assumed	4.162	.049	-.055	36	.956	-.00968	.17548	-.36558	.34622
	Equal variances not assumed			-.044	13.7 42	.966	-.00968	.22001	-.48239	.46303
RGEA diameters difference after/before	Equal variances assumed	.173	.680	-.268	33	.790	-.05250	.19586	-.45099	.34599
	Equal variances not assumed			-.269	22.7 39	.790	-.05250	.19487	-.45587	.35087

NPar Tests
Mann-Whitney Test

Ranks

			Type od parenchimal blood flow	N	Mean Rank	Sum of Ranks
GDA blood flow intencity alteration after/before			collateral	12	18.25	219.00
			main	26	20.08	522.00
			Total	38		
PDA blood flow intencity alteration after/before			collateral	12	22.75	273.00
			main	26	18.00	468.00
			Total	38		
PHA blood flow intencity alteration after/before			collateral	12	20.42	245.00
			main	26	19.08	496.00
			Total	38		
RGEA blood flow intencity alteration after/before			collateral	12	19.33	232.00
			main	23	17.30	398.00
			Total	35		
GDA diameters ratio after/before			collateral	12	18.25	219.00
			main	26	20.08	522.00
			Total	38		
PDA diameters ratio after/before			collateral	12	22.75	273.00
			main	26	18.00	468.00
			Total	38		
PHA diameters ratio after/before			collateral	12	18.58	223.00
			main	26	19.92	518.00
			Total	38		
RGEA diameters ratio after/before			collateral	12	19.33	232.00
			main	23	17.30	398.00
			Total	35		
GDA diameters difference after/before			collateral	12	19.33	232.00
			main	26	19.58	509.00
			Total	38		
PDA diameters difference after/before			collateral	12	22.71	272.50
			main	26	18.02	468.50
			Total	38		
PHA diameters difference after/before			collateral	12	18.63	223.50
			main	26	19.90	517.50
			Total	38		
RGEA diameters difference after/before			collateral	12	18.08	217.00
			main	23	17.96	413.00
			Total	35		

Test Statistics

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2- tailed)	Exact Sig. [2*(1- tailed Sig.)]
GDA blood flow intensity alteration after/before	141.000	219.000	-.471	.638	.653
PDA blood flow intensity alteration after/before	117.000	468.000	-1.225	.221	.230
PHA blood flow intensity alteration after/before	145.000	496.000	-.345	.730	.745
RGEA blood flow intensity alteration after/before	122.000	398.000	-.556	.578	.595
GDA diameters ratio after/before	141.000	219.000	-.471	.638	.653
PDA diameters ratio after/before	117.000	468.000	-1.225	.221	.230
PHA diameters ratio after/before	145.000	223.000	-.345	.730	.745
RGEA diameters ratio after/before	122.000	398.000	-.556	.578	.595
GDA diameters difference after/before	154.000	232.000	-.063	.950	.963
PDA diameters difference after/before	117.500	468.500	-1.210	.226	.230
PHA diameters difference after/before	145.500	223.500	-.330	.741	.745
RGEA diameters difference after/before	137.000	413.000	-.035	.972	.986

Crosstabs

Case Processing Summary

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Puls preservation * Type od parenchimal blood flow	38	100.0%	0	0.0%	38	100.0%

Puls preservation * Type od parenchimal blood flow Crosstabulation

		Type od parenchimal blood flow		Total
		collateral	main	
Puls preservation	no	Count	4 ^a	0 ^b
		% within Type od parenchimal blood flow	33.3%	0.0%
	yes	Count	8 ^a	26 ^b
				34

	% within Type od	66.7%	100.0%	89.5%
	parenchimal blood flow			
Total	Count	12	26	38
	% within Type od	100.0%	100.0%	100.0%
	parenchimal blood flow			

Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	9.686	1	.002		
Continuity Correction	6.470	1	.011		
Likelihood Ratio	10.297	1	.001		
Fisher's Exact Test				.007	.007
Linear-by-Linear Association	9.431	1	.002		
N of Valid Cases	38				

T-Test

Group Statistics

	Puls preservation	N	Mean	Std. Deviation	Std. Error Mean
Linear blood flow velocity	no	4	-48.25	32.212	16.106
decrease.%	yes	34	-18.09	15.044	2.580

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Differe nce	Std. Error Differe nce	95% Confidence Interval of the Difference	
Linear blood flow velocity decrease.%	Equal variances assumed	5.853	.021	-3.328	36	.002	-30.162	9.062	-48.541	-11.782
	Equal variances not assumed			-1.849	3.156	.157	-30.162	16.311	-80.651	20.328

NPar Tests

Mann-Whitney Test

Ranks

	Puls preservation	N	Mean Rank	Sum of Ranks
Linear blood flow velocity decrease. %	no	4	10.38	41.50
	yes	34	20.57	699.50
	Total	38		

Test Statistics

Linear blood flow velocity decrease. %	
Mann-Whitney U	31.500
Wilcoxon W	41.500
Z	-1.741
Asymp. Sig. (2-tailed)	.082
Exact Sig. [2*(1-tailed Sig.)]	.083

T-Test

Group Statistics				
Type of blood flow	N	Mean	Std. Deviation	Std. Error Mean
Linear blood flow velocity decrease. % collateral	12	-42.58	18.696	5.397
main	26	-11.42	8.990	1.763

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Linear blood flow velocity decrease. %	Equal variances assumed	5.175	.029	-6.995	36	.000	-31.160	4.455	-40.195	-22.126
	Equal variances not assumed			-5.488	13.406	.000	-31.160	5.678	-43.389	-18.932
					8					

NPar Tests

Mann-Whitney Test

Ranks

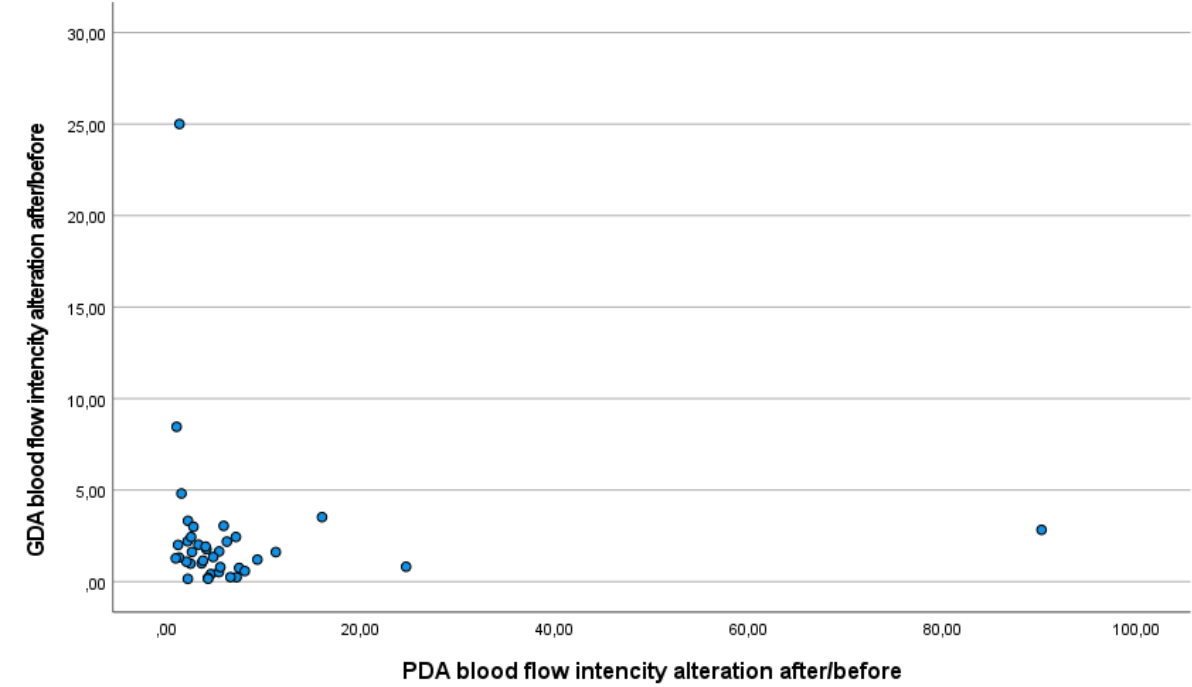
Type of blood flow	N	Mean Rank	Sum of Ranks
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Linear blood flow velocity decrease. %	collateral	12	8.63	103.50
	main	26	24.52	637.50
	Total	38		

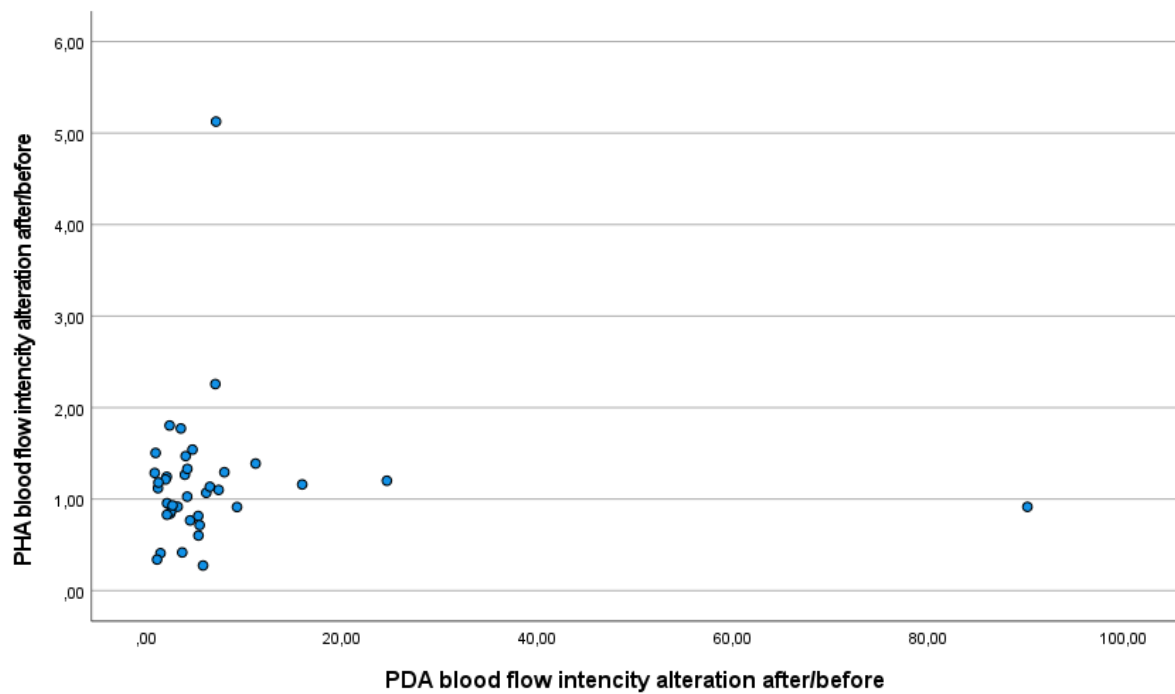
Test Statistics

	Linear blood flow velocity decrease. %
Mann-Whitney U	25.500
Wilcoxon W	103.500
Z	-4.109
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000

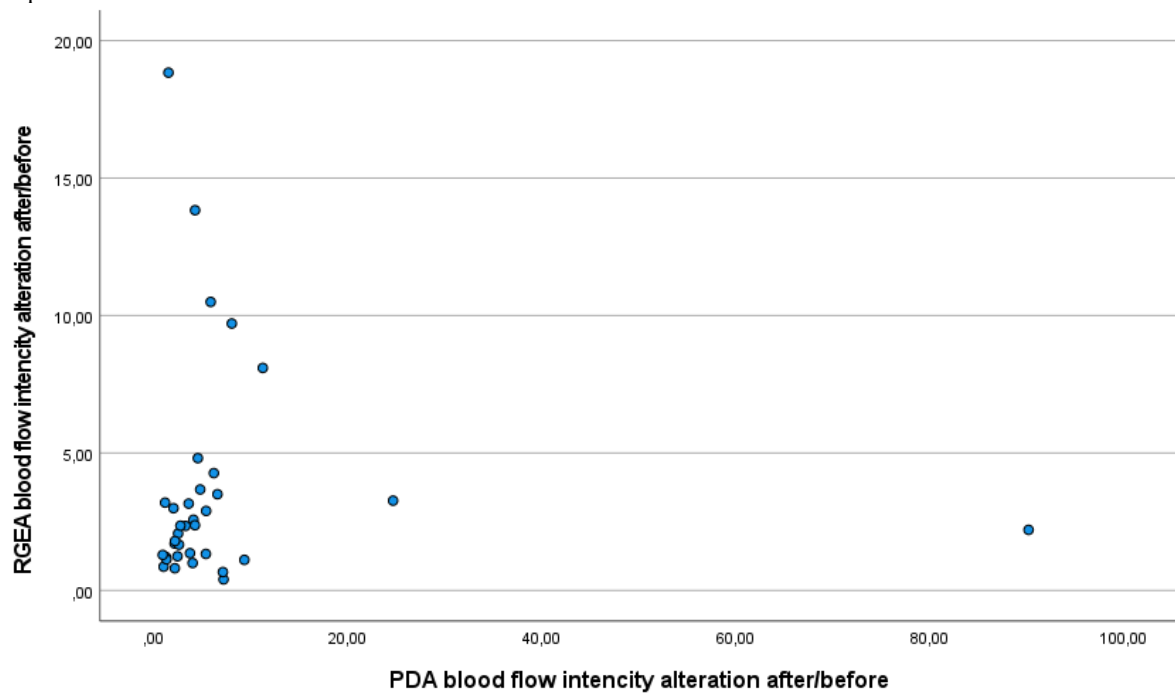
Graph



Graph



Graph



Correlations

Correlations				
	GDA blood flow intensity alteration after/before	PDA blood flow intensity alteration after/before	PHA blood flow intensity alteration after/before	RGEA blood flow intensity alteration after/before
Pearson Correlation	1	-.042	-.057	-.057
Sig. (2-tailed)		.800	.735	.744

GDA	blood	flow	N	38	38	38	35
intensity		alteration					
after/before							
PDA	blood	flow	Pearson Correlation	-.042	1	-.015	-.033
intensity		alteration	Sig. (2-tailed)	.800		.926	.851
after/before			N	38	38	38	35
PHA	blood	flow	Pearson Correlation	-.057	-.015	1	-.246
intensity		alteration	Sig. (2-tailed)	.735	.926		.155
after/before			N	38	38	38	35
RGEA	blood	flow	Pearson Correlation	-.057	-.033	-.246	1
intensity		alteration	Sig. (2-tailed)	.744	.851	.155	
after/before			N	35	35	35	35

Nonparametric Correlations

				Correlations			
				GDA blood flow intensity alteration after/before	PDA blood flow intensity alteration after/before	PHA blood flow intensity alteration after/before	RGEA blood flow intensity alteration after/before
Spearman's rho	GDA	blood	flow	Correlation	1.000	-.246	-.109
				Coefficient			
				Sig. (2-tailed)	.	.137	.515
				N	38	38	35
	PDA	blood	flow	Correlation	-.246	1.000	.072
				Coefficient			
				Sig. (2-tailed)	.137	.	.669
				N	38	38	35
	PHA	blood	flow	Correlation	-.109	.072	1.000
				Coefficient			
				Sig. (2-tailed)	.515	.669	.
				N	38	38	35
	RGEA	blood	flow	Correlation	-.057	.268	-.198
				Coefficient			
				Sig. (2-tailed)	.746	.120	.254
				N	35	35	35

T-Test

Group Statistics				
Type	N	Mean	Std. Deviation	Std. Error Mean
classical	30	2.4920	4.53800	.82852

GDA blood flow intencity alteration after/before	aberrant	8	1.9273	1.47923	.52299
PDA blood flow intencity alteration after/before	classical	30	8.1891	16.26124	2.96888
	aberrant	8	4.0855	2.03198	.71841
PHA blood flow intencity alteration after/before	classical	30	1.3255	.80462	.14690
	aberrant	8	.6580	.28386	.10036
RGEA blood flow intencity alteration after/before	classical	28	2.8460	2.97509	.56224
	aberrant	7	6.3733	6.28371	2.37502
GDA diameters ratio after/before	classical	30	1.1064	.32319	.05901
	aberrant	8	1.1170	.23592	.08341
PDA diameters ratio after/before	classical	30	1.4877	.41716	.07616
	aberrant	8	1.3821	.21514	.07606
PHA diameters ratio after/before	classical	30	.9614	.09914	.01810
	aberrant	8	1.1458	.14627	.05171
RGEA diameters ratio after/before	classical	28	1.2165	.25541	.04827
	aberrant	7	1.4785	.35862	.13554
GDA diameters difference after/before	classical	30	.1983	.98412	.17967
	aberrant	8	.3600	.73681	.26050
PDA diameters difference after/before	classical	30	1.0113	.58668	.10711
	aberrant	8	.8600	.47059	.16638
PHA diameters difference after/before	classical	30	-.1297	.44713	.08163
	aberrant	8	.4187	.44809	.15842
RGEA diameters difference after/before	classical	28	.4986	.56314	.10642
	aberrant	7	.7657	.41689	.15757

Independent Samples Test

			Levene's Test for Equality of Variances		t-test for Equality of Means					
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper
GDA blood flow intencity alteration after/before	Equal variances assumed		.473	.496	.344	36	.733	.56472	1.64134	- 2.76407
	Equal variances not assumed				.576	34.212	.568	.56472	.97978	- 1.42598

PDA	blood	Equal	1.185	.284	.705	36	.485	4.10364	5.81841	-	15.9039
flow	intensity	variances								7.69665	2
alteration		assumed									
after/before		Equal			1.34	32.0	.189	4.10364	3.05457	-	10.3252
		variances not			3	40				2.11801	8
		assumed									
PHA	blood	Equal	.544	.466	2.28	36	.028	.66744	.29164	.07596	1.25892
flow	intensity	variances			9						
alteration		assumed									
after/before		Equal			3.75	32.7	.001	.66744	.17791	.30539	1.02949
		variances not			1	93					
		assumed									
RGEA	blood	Equal	6.969	.013	-	33	.035	-	1.60473	-	-.26246
flow	intensity	variances			2.19			3.52731		6.79217	
alteration		assumed			8						
after/before		Equal			-	6.68	.194	-	2.44066	-	2.29921
		variances not			1.44	7		3.52731		9.35384	
		assumed			5						
GDA		Equal	.129	.721	-.086	36	.932	-.01058	.12262	-.25927	.23811
diameters		variances									
ratio		assumed									
after/before		Equal			-.104	14.8	.919	-.01058	.10217	-.22853	.20737
		variances not				61					
		assumed									
PDA		Equal	.844	.364	.687	36	.496	.10560	.15369	-.20610	.41731
diameters		variances									
ratio		assumed									
after/before		Equal			.981	22.5	.337	.10560	.10764	-.11729	.32850
		variances not				91					
		assumed									
PHA		Equal	4.604	.039	-	36	.000	-.18442	.04373	-.27311	-.09573
diameters		variances			4.21						
ratio		assumed			7						
after/before		Equal			-	8.78	.009	-.18442	.05479	-.30882	-.06002
		variances not			3.36	8					
		assumed			6						
RGEA		Equal	1.090	.304	-	33	.032	-.26196	.11707	-.50016	-.02377
diameters		variances			2.23						
ratio		assumed			8						
after/before		Equal			-	7.59	.108	-.26196	.14388	-.59690	.07297
		variances not			1.82	1					
		assumed			1						

GDA	Equal	.182	.672	-.432	36	.669	-.16167	.37449	-.92116	.59783
diameters	variances									
difference	assumed									
after/before	Equal			-.511	14.4	.617	-.16167	.31645	-.83840	.51506
	variances not				55					
	assumed									
PDA	Equal	.337	.565	.672	36	.506	.15133	.22521	-.30541	.60807
diameters	variances									
difference	assumed									
after/before	Equal			.765	13.4	.458	.15133	.19788	-.27471	.57738
	variances not				47					
	assumed									
PHA	Equal	.281	.599	-	36	.004	-.54842	.17799	-.90940	-.18743
diameters	variances			3.08						
difference	assumed			1						
after/before	Equal			-	11.0	.010	-.54842	.17822	-.94057	-.15626
	variances not			3.07	23					
	assumed			7						
RGEA	Equal	.757	.391	-	33	.250	-.26714	.22798	-.73098	.19669
diameters	variances			1.17						
difference	assumed			2						
after/before	Equal			-	12.1	.185	-.26714	.19014	-.68082	.14653
	variances not			1.40	60					
	assumed			5						

NPar Tests

Mann-Whitney Test

Ranks				
	Type	N	Mean Rank	Sum of Ranks
GDA blood flow intensity alteration after/before	classical	30	19.20	576.00
	aberrant	8	20.63	165.00
	Total	38		
PDA blood flow intensity alteration after/before	classical	30	19.73	592.00
	aberrant	8	18.63	149.00
	Total	38		
PHA blood flow intensity alteration after/before	classical	30	22.83	685.00
	aberrant	8	7.00	56.00
	Total	38		
RGEA blood flow intensity alteration after/before	classical	28	16.21	454.00
	aberrant	7	25.14	176.00
	Total	35		
	classical	30	19.20	576.00

GDA	diameters	ratio	aberrant	8	20.63	165.00
after/before			Total	38		
PDA	diameters	ratio	classical	30	19.73	592.00
after/before			aberrant	8	18.63	149.00
			Total	38		
PHA	diameters	ratio	classical	30	16.17	485.00
after/before			aberrant	8	32.00	256.00
			Total	38		
RGEA	diameters	ratio	classical	28	16.21	454.00
after/before			aberrant	7	25.14	176.00
			Total	35		
GDA	diameters	difference	classical	30	19.02	570.50
after/before			aberrant	8	21.31	170.50
			Total	38		
PDA	diameters	difference	classical	30	19.92	597.50
after/before			aberrant	8	17.94	143.50
			Total	38		
PHA	diameters	difference	classical	30	16.40	492.00
after/before			aberrant	8	31.13	249.00
			Total	38		
RGEA	diameters	difference	classical	28	16.89	473.00
after/before			aberrant	7	22.43	157.00
			Total	35		

Test Statistics						
			Mann-Whitney			
			U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
						Exact Sig. [2*(1-tailed Sig.)]
GDA	blood flow intensity		111.000	576.000	-.322	.747
alteration	after/before					.765
PDA	blood flow intensity		113.000	149.000	-.251	.802
alteration	after/before					.820
PHA	blood flow intensity		20.000	56.000	-3.581	.000
alteration	after/before					.000
RGEA	blood flow intensity		48.000	454.000	-2.062	.039
alteration	after/before					.039
GDA	diameters	ratio	111.000	576.000	-.322	.747
after/before						.765
PDA	diameters	ratio	113.000	149.000	-.251	.802
after/before						.820
PHA	diameters	ratio	20.000	485.000	-3.581	.000
after/before						.000

RGEA	diameters	ratio	48.000	454.000	-2.062	.039	.039
after/before							
GDA	diameters	difference	105.500	570.500	-.519	.604	.610
after/before							
PDA	diameters	difference	107.500	143.500	-.448	.654	.661
after/before							
PHA	diameters	difference	27.000	492.000	-3.334	.001	.000
after/before							
RGEA	diameters	difference	67.000	473.000	-1.279	.201	.214
after/before							