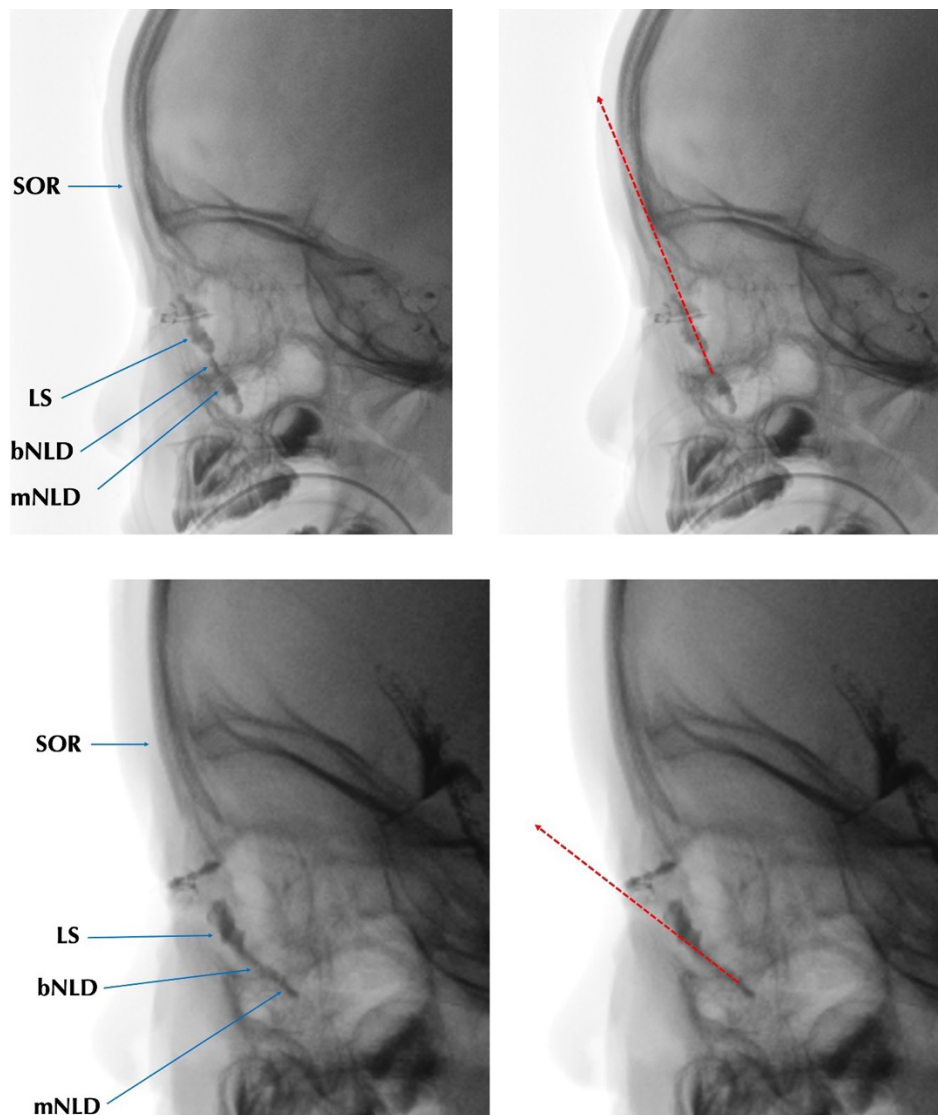


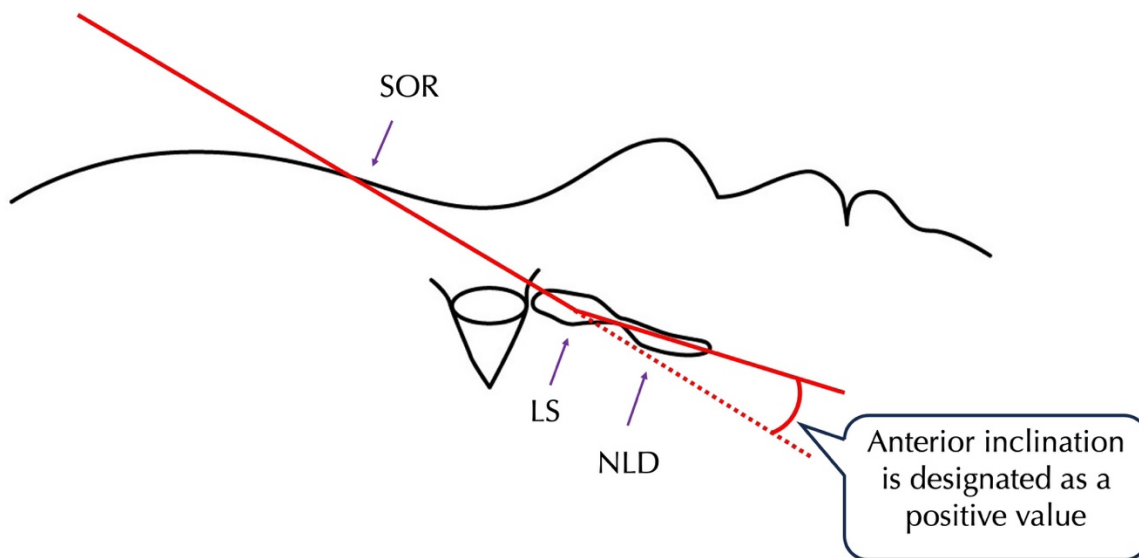
## Supplementary Information

**Supplementary Figure 1.** The evaluation of the SOR interference on the lateral view of the DCG images



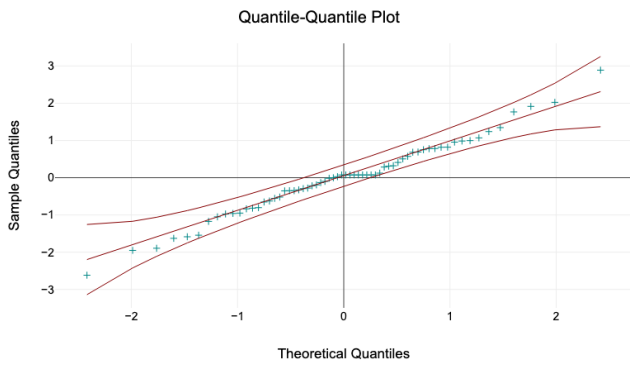
Passing a straight probe through the NLD is anticipated to be challenging when the anteriorly extended path of the bNLD interferes with the SOR on the lateral view of the DCG images (upper figure). Among the 64 cases in our study, 16 (25%) encountered this specific interference. Abbreviations: LS, lacrimal sac; bNLD, bony nasolacrimal duct; mNLD, membranous nasolacrimal duct; SOR, superior orbital rim

**Supplementary Figure 2.** Limitations associated with a straight-probe procedure



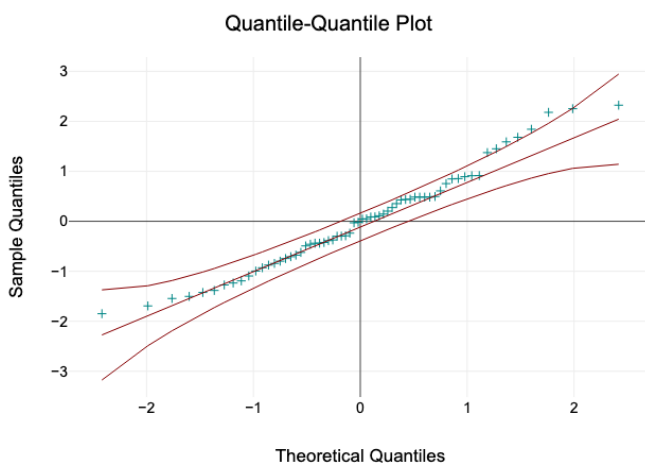
A SOR–LS–NLD angle with a positive value poses challenges for a straight probe passing through the bNLD due to interference from the SOR. This interference was observed in 25% of cases among patients with CNLDO in this study, indicating the potential benefit of using a probe with a curved or bent tip for procedures in such cases. Additionally, 75% of patients exhibited a SOR–LS–NLD angle of less than  $0^\circ$ , indicating the feasibility of passing the bNLD with a straight probe without SOR interference. Abbreviations: LS, lacrimal sac; NLD, nasolacrimal duct; SOR, superior orbital rim

**Supplementary Figure 3. Q-Q plots of the investigated parameters**



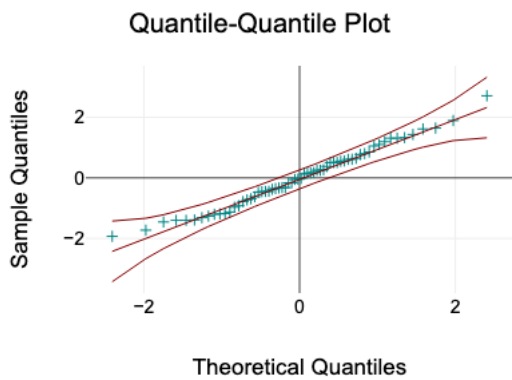
**Q-Q plot of the Lateral LS-NLD angle**

Mean	-1.23
Std. Deviation	16.54
Minimum	-44.55
Maximum	46.55



**Q-Q plot of the SOR-LS-NLD angle**

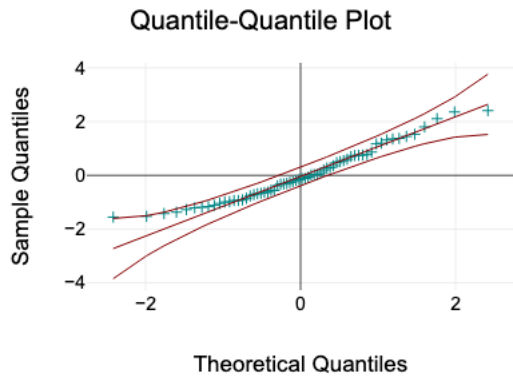
Mean	-4.97
Std. Deviation	10.28
Minimum	-23.97
Maximum	18.9



**Q-Q plot of the bNLD length**

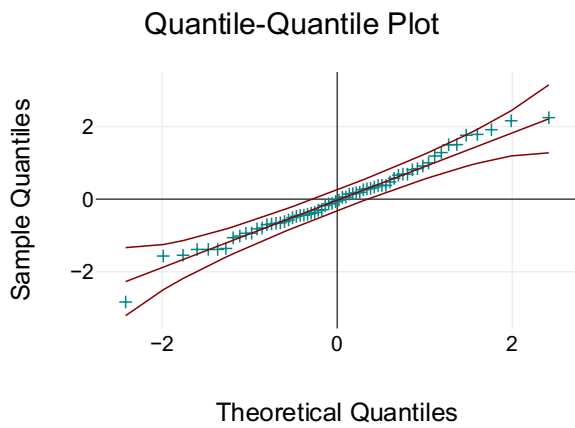
Mean	7.95
Std. Deviation	2.52
Minimum	3.09
Maximum	14.78

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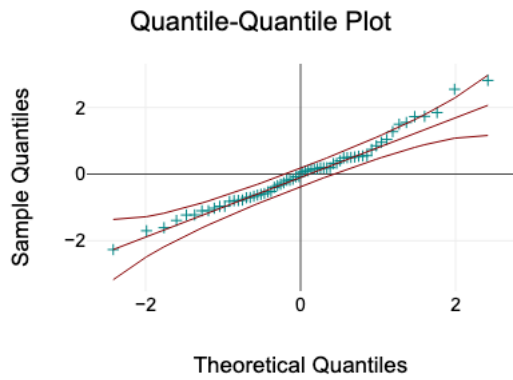
**Q-Q plot of the LS length**

Mean	10.24
Std. Deviation	2.39
Minimum	6.53
Maximum	16.01



**Q-Q plot of the Frontal LS-NLD angle**

Mean	15.62
Std. Deviation	11.19
Minimum	-16.77
Maximum	41.04



**Q-Q plot of the Frontal Medial-LS angle**

Mean	15.11
Std. Deviation	5.2
Minimum	3.31
Maximum	29.76

**Supplementary Table 1. Measured values of each parameter assessed in this study.**

Sex	Age (months)	Laterality	Height (cm)	Weight (Kg)	Lateral LS-NLD angle	NLD angle	SOR-LS-NLD angle	bNLD length (mm)	LS length (mm)	SOR interference	Frontal LS-NLD angle	Frontal medial-LS
M	75	L	112.8	19.9	-18.61	4.43	8.63	15.29	No	3.74	11.83	
M	27	L	87	13.715	10.09	-4.05	9.58	14.56	No	10.15	13.31	
F	36	L	103	19.9	-28.17	-7.41	7.84	13.54	No	17.66	13.51	
M	69	L	114.5	16.1	-27.47	-5.28	8.9	12.1	No	24.01	18.97	
M	36	R	94	14.45	3.49	-10.03	9.49	11.68	No	27.61	20.53	
M	72	R	110.8	20.65	-9.83	-1.34	12.72	12.01	No	14.01	14.14	
M	33	R	91	14.95	5.55	-5.17	7.14	10.73	No	0.31	7.86	
M	81	L	115	20.8	-32.57	-13.63	6.83	7.87	No	33.37	17.65	
M	29	R	87.1	13.16	46.55	18.9	8.36	10.33	Yes	0	12.4	
M	14	L	76.5	9.7	15.26	-8.94	10.72	6.53	No	15.74	24.14	
F	28	R	90.2	13.5	11.73	13.95	7.82	7.58	Yes	11.82	10.85	
M	84	L	119.2	19.3	-1.26	-9.47	4.45	11.56	No	18.23	15.4	
M	44	R	104	17.05	32.26	4.4	4.42	8.91	Yes	30.89	23.18	
M	19	R	86.7	12.365	19.27	17.43	6.12	9.7	Yes	15.27	11.45	
M	35	L	94.6	14	0	-0.48	9.22	9.97	No	-1.86	9.78	
M	74	R	107.3	16.9	16.46	-7.95	8.34	15.89	Yes	14.54	11.05	
M	24	R	82	11.4	-14.52	-0.44	8.39	6.85	No	33.42	29.76	
F	19	R	84.3	12.16	-5.84	-8.02	4.95	12.32	No	36.69	16.1	
M	18	L	75.6	10.25	-10.41	-2.15	7.54	10.09	No	8.34	15.63	
F	44	L	90	14.15	0	-13.97	9.36	8.65	No	7.89	8.72	
F	24	L	82	11.7	0	0	8.26	7.41	No	10.88	11.65	
M	82	L	114.9	21.2	7.12	-2.88	11.3	9.53	No	0	9.37	
F	24	L	79.2	9.27	11.19	-13.17	4.28	7.2	No	11.57	16.09	
M	39	R	91.5	14.3	4.09	2.78	4.99	7.46	Yes	8.49	9.39	
F	19	R	75.1	8.63	0	-20.84	5.11	6.6	No	41.04	28.37	
M	24	R	82	10.3	-16.95	4.2	5.63	7.36	No	4.28	3.31	
M	23	R	84	12.22	-2.86	11.36	9.5	6.97	Yes	11.21	14.31	
F	28	L	86.1	11.9	-44.55	12.3	3.09	10.29	No	12.69	13.05	
F	21	R	79.4	10.22	-11.58	9.94	6.82	10.32	Yes	18.04	17.68	
M	19	R	84.3	11.45	-6.08	-9.69	3.6	8.01	No	25.42	16.13	

F	24	L	82.5	11.65	-15.07	-22.37	6.75	8.92	No	17.78	12.07
M	20	L	79	10.755	0	-4.46	5.98	12.05	No	0	11.42
M	18	L	80	10.2	30.44	-9.33	4.42	9.86	Yes	10.93	17.95
M	74	R	110.6	18	-7.08	-8.04	N/A	11.47	No	16.62	15.94
M	25	L	88.2	13.35	21.03	0	N/A	8.06	No	8.89	12.33
M	23	R	84.4	12.12	-17.35	-19.61	11.25	7.9	No	14.68	17.72
F	37	L	93.2	14.05	14.58	-4.09	11.56	13.91	No	20.42	19.54
M	58	R	106.5	17.2	-17.1	0.13	9.23	13.49	No	-2.1	6.25
F	32	R	84.5	9.3	3.9	-14.52	5.51	11.11	No	6.55	14.69
F	28	R	83.6	10.15	-1.49	-16.21	7.91	9.32	No	38.2	24.1
M	18	R	79	10	-6.99	9.15	4.77	8.76	Yes	N/A	20.08
M	18	L	83.8	12.15	-0.77	-17.66	11.25	7.75	No	19.88	15.59
M	18	L	76.4	10.33	-33.51	-15.2	4.92	8.61	No	36.43	17.78
M	37	R	92.6	13	-14.76	-19.19	12.09	9.8	No	29.8	16.76
F	33	R	89.8	11.85	-4.42	3.81	14.78	13.05	No	-16.77	10.08
F	32	R	92.6	15.1	0.8	18.18	6.38	8.01	Yes	6.84	14.15
M	36	L	93.8	13.5	28	1.28	6.21	13.11	Yes	26.62	11.95
M	18	L	78.5	11.1	-7.01	-12.63	8.58	12.03	No	5.15	8.73
F	35	R	95	13.1	15.07	0	10.1	9.97	Yes	12.47	10.96
M	28	R	85.4	12.6	-3.4	-12.25	7.06	9.62	No	19.33	13.75
F	24	R	88	14.3	-20.64	-17.22	9.97	13.71	No	8.12	10.98
M	70	L	110	19.7	-4.82	-9.47	9.89	11.92	No	16.69	15.87
M	23	R	81.5	11.12	12.34	-11.93	9.23	9.47	No	10.55	16.82
M	33	L	93.4	15.25	0	0	10.96	13.4	No	19.05	17.99
M	22	R	82.7	12.7	12.29	-4.51	4.64	10.5	No	23.69	21.75
M	18	R	84.8	11.65	10.18	-8.81	7.14	11.38	Yes	5.18	6.73
F	21	R	80.3	11.4	-6.63	-0.58	8.58	10.89	No	20.43	15.9
F	20	R	81	11.1	0	-20.41	12.02	8.41	No	25.76	14.73
F	24	R	81.7	11.9	-26.78	-18.06	7.11	8.53	No	21.51	17.2
F	28	R	87.9	13.8	11.66	-3.84	7	8.72	Yes	22.69	16.1
M	46	R	96	14.15	0	-11.37	7.53	10.92	No	24.02	22.91
M	17	R	77.3	9.7	8.26	3.74	6.8	8.21	Yes	9.4	17.9
F	56	L	95.5	12.8	0	-3.49	10.6	16.01	No	19.48	10.08
F	19	L	85	10.595	-12.02	-23.97	9.33	9.48	No	20.41	24.73