

Figure S1

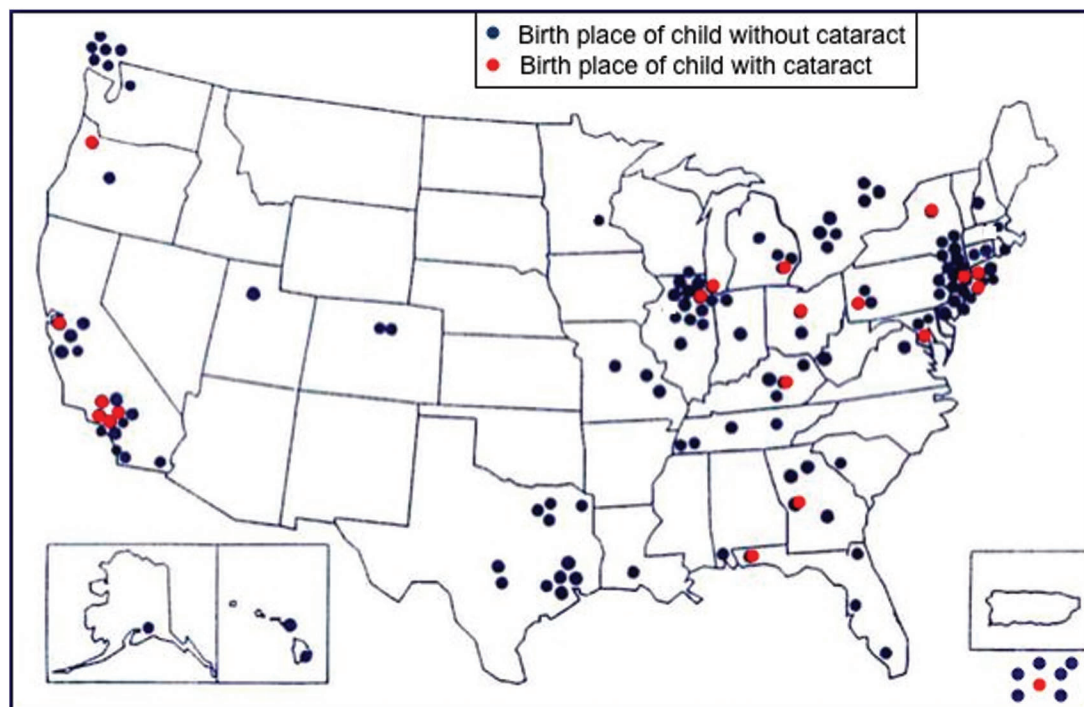


Figure S2

**Cortex**

*Anterior  
subcapsular  
cataract (6)*

*Cortical  
Cataract (0)*

*Anterior polar  
cataract (3)*

*Lamellar  
cataract (0)*

**Nucleus**

*Posterior  
subcapsular  
cataract (7)*

**Capsule**

*Nuclear  
cataract (5)*

**ANTERIOR**

**POSTERIOR**

6 unknown

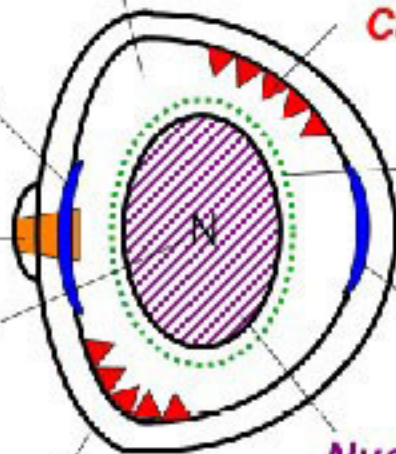


Figure S3

### Complexity of cataracts (n=27)

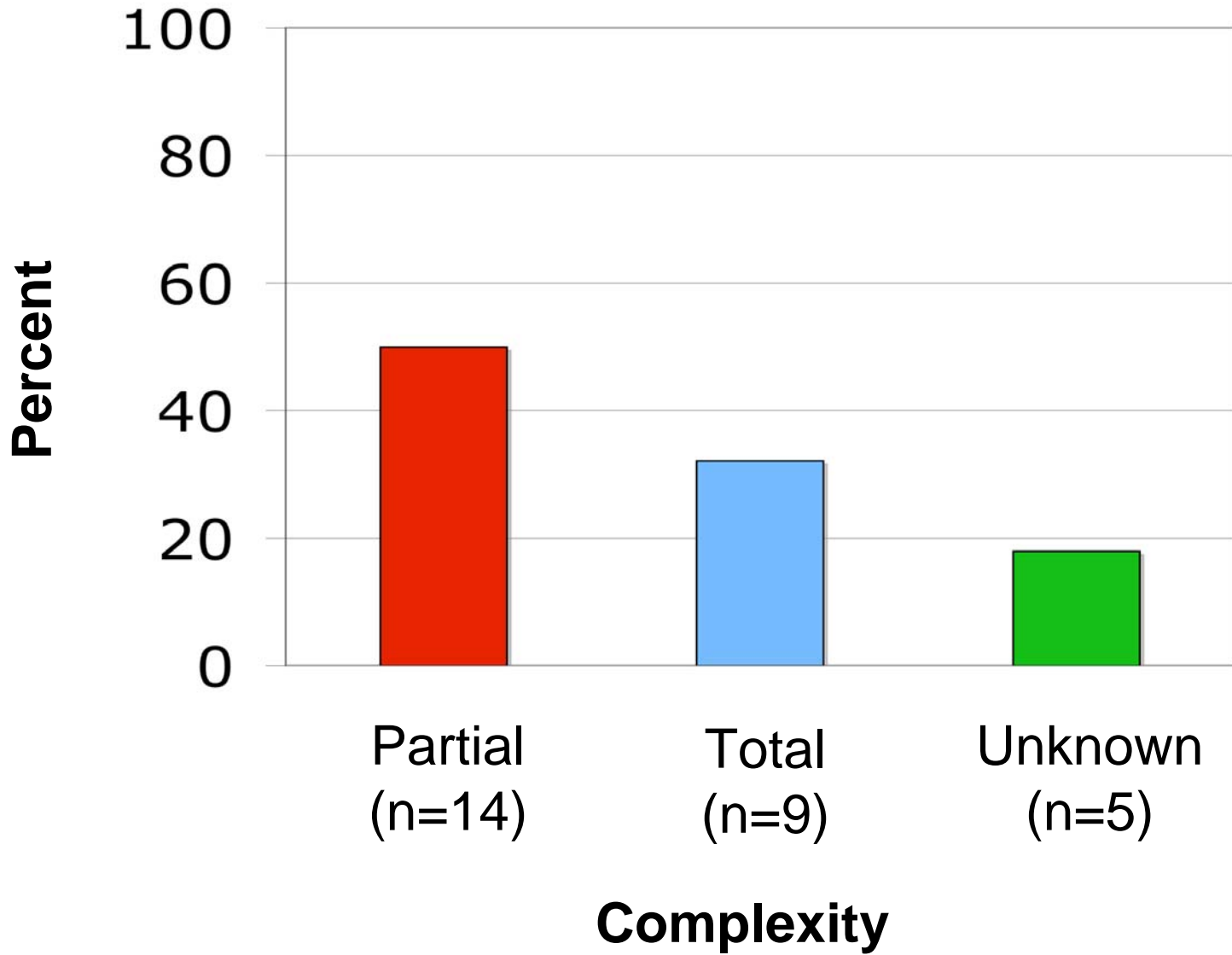
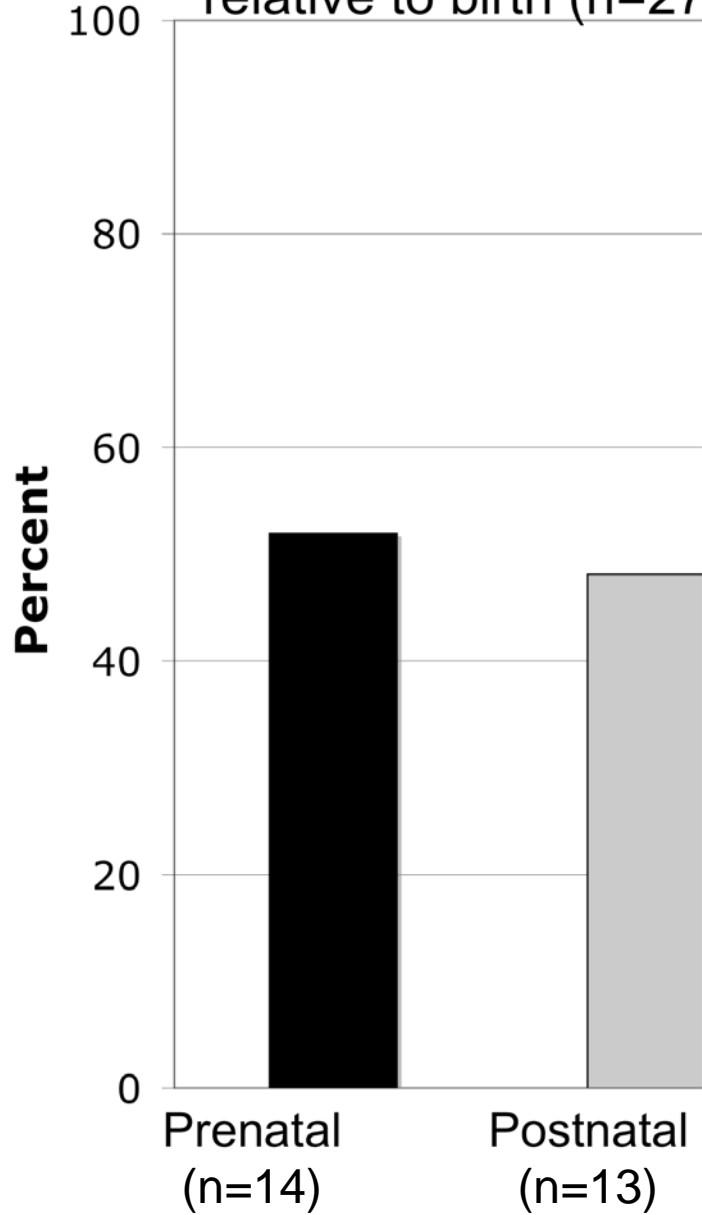


Figure S4

**A.**

Time of cataract acquisition  
relative to birth (n=27)



**B.**

Natural history of  
cataracts (n=27)

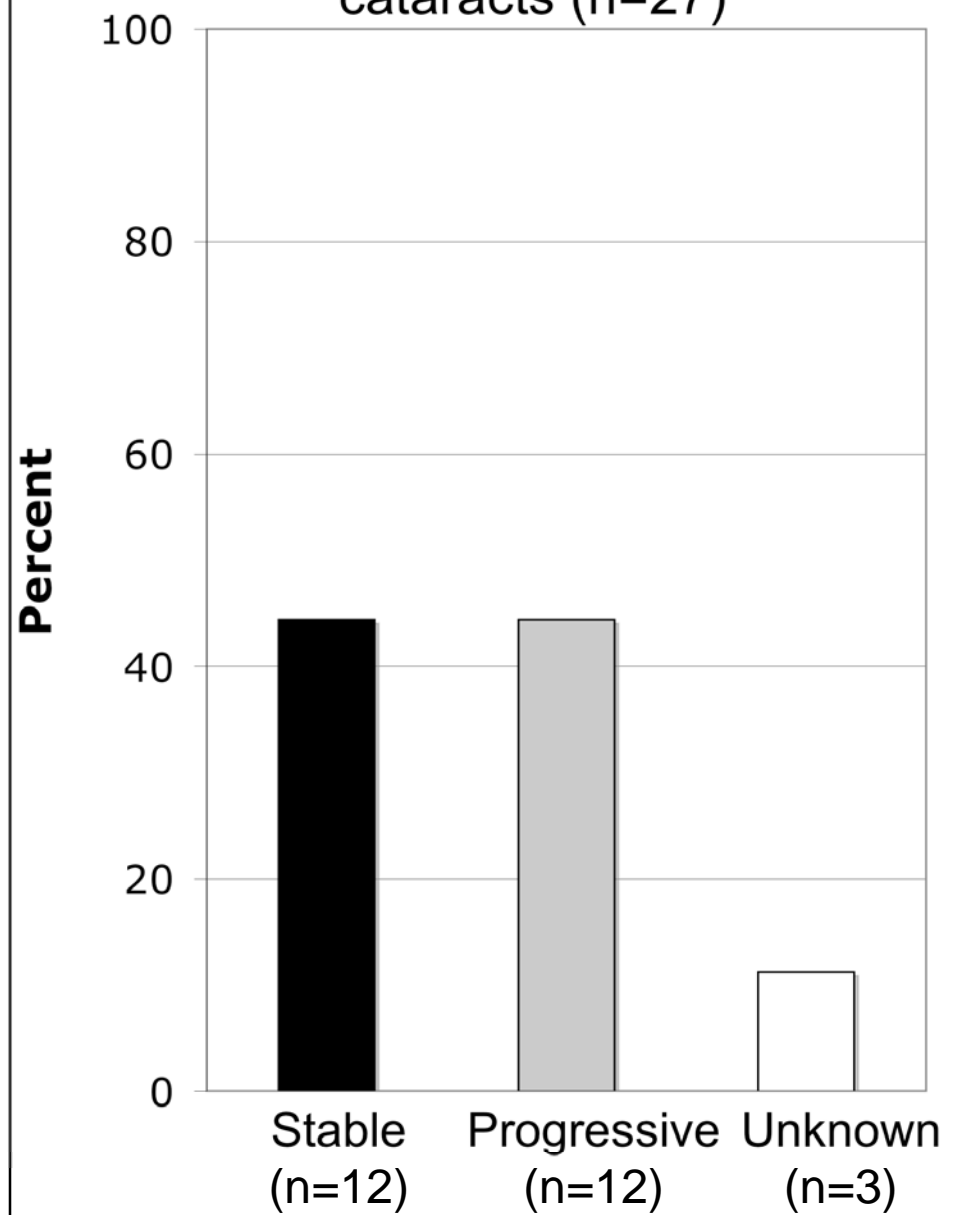


Figure S5

## Right Eye

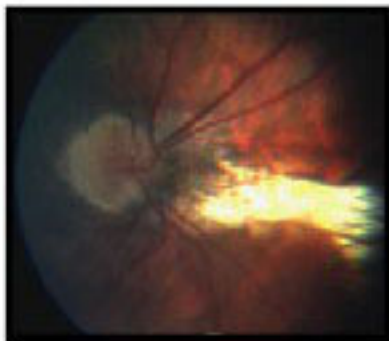
## Left Eye

Birth	<ul style="list-style-type: none"> <li>• Fixes and follows</li> <li>• Microphthalmia, Microcornea</li> <li>• Posterior synechiae with bubbly lens opacities</li> <li>• Large macular chorioretinal scar</li> <li>• Three large peripheral chorioretinal scars</li> </ul>	<ul style="list-style-type: none"> <li>• Fixes and follows</li> <li>• Posterior synechiae</li> <li>• Dragging of the macula with large chorioretinal scar</li> </ul>
2 mo	<ul style="list-style-type: none"> <li>• No fixing or following</li> <li>• Total cataract</li> <li>• Poor view of the optic nerve and retina due to vitritis and total cataract</li> <li>• No RD or PHPV</li> <li>• Cataract extraction recommended</li> </ul>	<ul style="list-style-type: none"> <li>• Fixes and follows</li> </ul>
2.5 mo	<ul style="list-style-type: none"> <li>• Extracapsular cataract extraction with anterior capsulotomy followed by a posterior capsulotomy and anterior vitrectomy</li> </ul>	<ul style="list-style-type: none"> <li>• Fixes and follows</li> </ul>
1 yr	<ul style="list-style-type: none"> <li>• No fixing or following without contact lens.</li> <li>• Aphakic</li> <li>• <b>Esotropia of 50 prism diopters</b></li> <li>• Peripheral iridectomy, second surgery.</li> <li>• Large chorioretinal macular and peripheral scars.</li> </ul>	<ul style="list-style-type: none"> <li>• Fixes and follows</li> <li>• Reaches for objects.</li> <li>• Pendular nystagmus</li> <li>• Dragged macula and vessels with macular chorioretinal scar</li> </ul>
3.5 yr	<ul style="list-style-type: none"> <li>• Microphthalmia, Microcornea</li> <li>• Pendular nystagmus</li> <li>• <b>Esotropia of 25 prism diopters</b></li> </ul>	<ul style="list-style-type: none"> <li>• Extensive chorioretinal scar in macula, dragged macula and vessels.</li> </ul>
5 yr	<ul style="list-style-type: none"> <li>• Fixes and follows</li> <li>• <b>Esotropia of 20 prism diopters</b></li> <li>• Corneal diameter 9mm x 9mm</li> <li>• Cycloplegic refraction +17.50 sphere</li> <li>• Persistent pendular nystagmus</li> <li>• Optic nerve normal</li> <li>• Large chorioretinal scar in the macula and 3 scars in the peripheral retina</li> </ul>	<ul style="list-style-type: none"> <li>• Fixes and follows</li> <li>• Corneal diameter 11mm x 10.5mm</li> <li>• -4.00 + 2.00 x 90 degrees</li> <li>• Optic nerve normal</li> <li>• Extensive chorioretinal scar extending from the optic nerve through the macula.</li> </ul>
11 yr	<ul style="list-style-type: none"> <li>• Corrected visual acuity at distance is 20/300</li> <li>• Corrected visual acuity at near is 20/400</li> <li>• <b>Esotropia of 18 prism diopters</b></li> <li>• Intraocular pressure of 20 mm Hg on 3 topical medications</li> <li>• Microcornea and microphthalmia</li> <li>• Band keratopath, aphakia, large chorioretinal scars in the macula and 3 scars in peripheral retina.</li> </ul>	<ul style="list-style-type: none"> <li>• Corrected visual acuity at distance is 20/400</li> <li>• Corrected visual acuity at near is 20/250</li> <li>• Slight decrease in abduction</li> <li>• Intraocular pressure of 18 mm Hg</li> <li>• Cornea is clear,</li> <li>• Extensive chorioretinal scar extending from the optic nerve through the macula, dragged macula and vessels.</li> </ul>

Figure S6

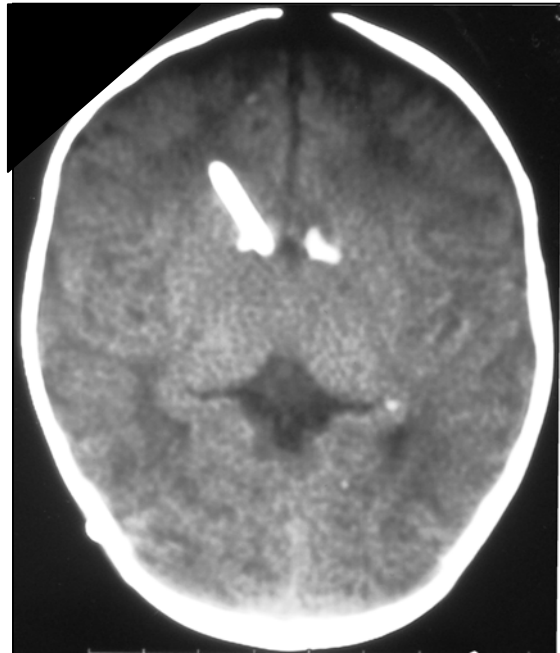
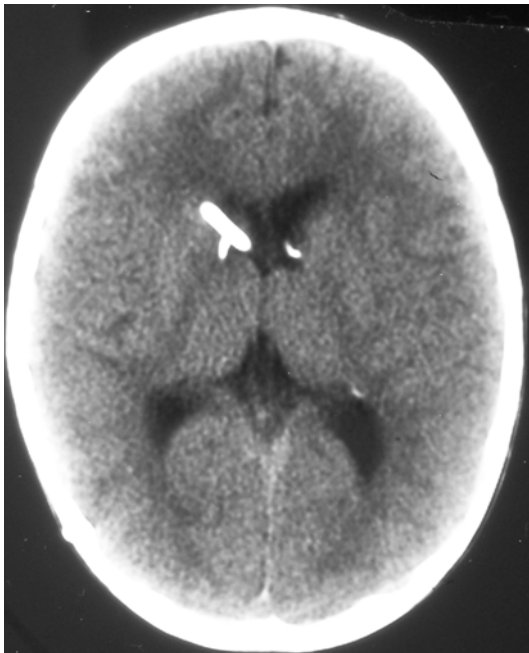
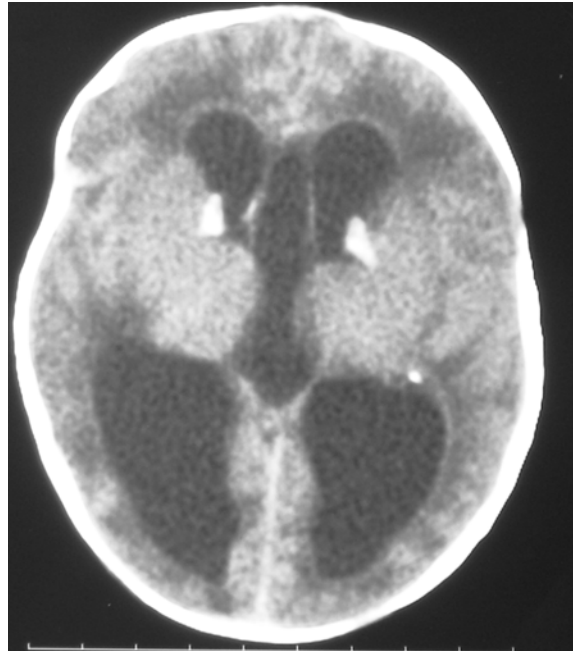


Right Eye



Left Eye

Figure S7



### Table S1. Characterization of cataracts

Patient #		Pre-natal	Post-natal	Morphology					Progression			Complexity			Cataract Surgery	Glaucoma	Retinal Detachment
				Ant. Polar	Ant. Subcapsular	Nuclear	Post. Subcapsular	?	Stable	Progressive	?	Partial	Total	?			
8 (F/A)	OD																X
	OS																
10 (F/A)	OD																
	OS																
14 (F/O)	OD																
	OS																
15 (F/A)	OD																
	OS																
27 (H/C)	OD																
	OS																
32 (H/C)	OD														a		
	OS														a		
34 (R/A)	OD																
	OS																
40 (R/C)	OD																
	OS																
47 (H/C)	OD																
	OS														b		
55 (H/C)	OD																
	OS																
60 (R/C)	OD														a		
	OS																
66 (R/C)	OD														c		
	OS																X
78 (R/A)	OD																
	OS																
90 (R/C)	OD																
	OS																
92 (R/A)	OD																
	OS																
97 (R/A)	OD																
	OS																
125 (F/C)	OD																
	OS																
137 (F/C)	OD																
	OS																
139 (F/C)	OD																
	OS																
152 (R/A)	OD																
	OS																X
<b>TOTALS</b>		14	13	3	6	5	7	6	12	12	3	13	9	5	5	2	16

KEY: **a** = extracapsular cataract extraction, **b** = enucleation at 14 years, **c** = pars plana lensectomy with silicone oil, **X** = eye with retinal detachment but no cataract

	N/A = Not available, child diagnosed after 1st year of life
	Severe findings at birth