

Retinal detachment associated with retinal dialysis: clinical features and outcomes of surgery in a 10-year study

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Surgical Management of Retinal Dialysis

- SB has been traditionally used but increasing popularity of PPV techniques
- Published data is limited to small case series
- Current literature lacking comparative outcome studies

Purpose

- To report the clinical features and outcomes after surgery for retinal detachment associated with retinal dialysis at our institution in the last 10 years.

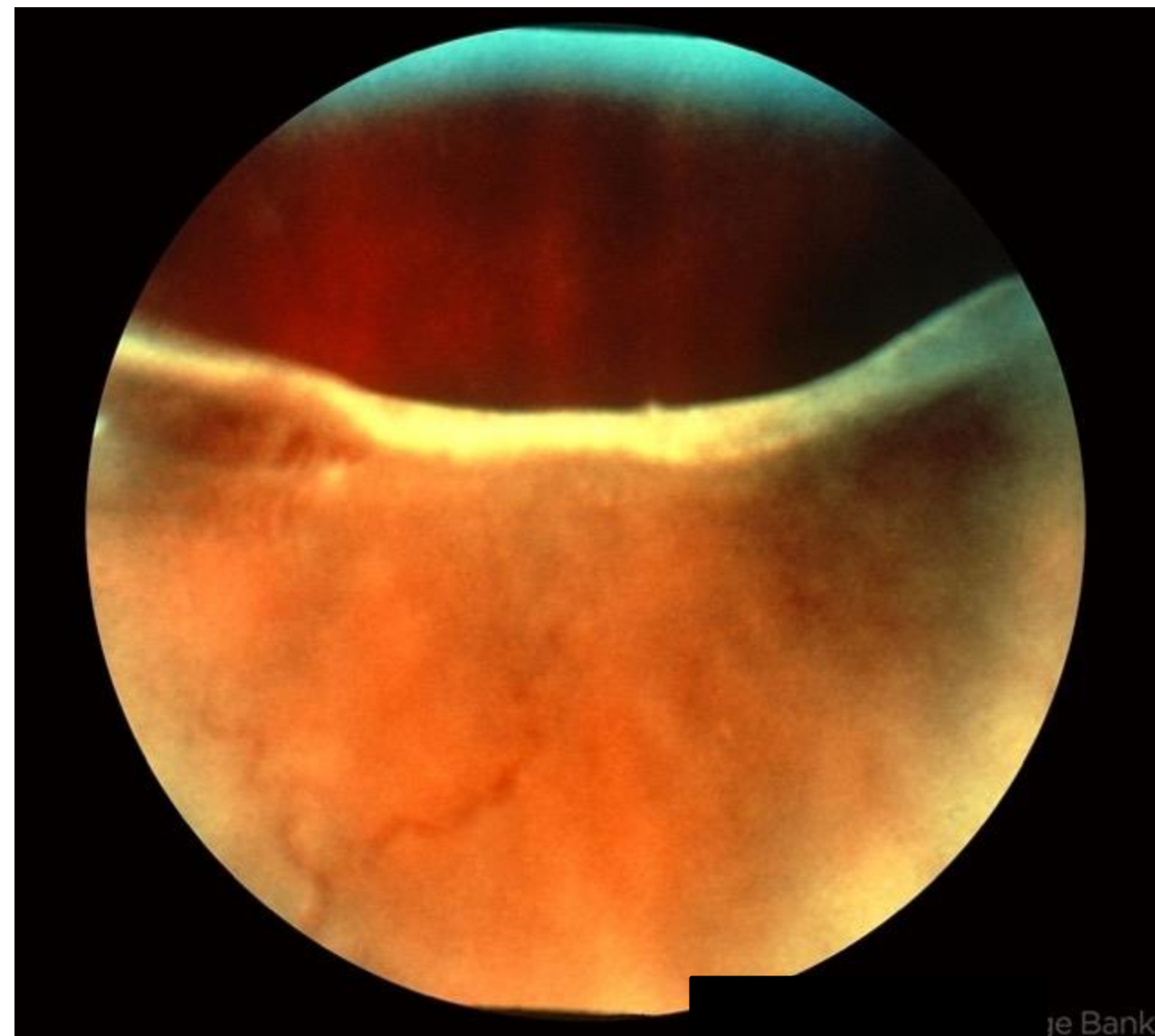


Methods

- All patients who underwent surgery for retinal detachment secondary to retinal dialysis between January 1, 2012 and January 1, 2022.
- Non-randomized retrospective case series conducted at Bascom Palmer Eye Institute
- General criteria for surgical choice of PPV: surgeon preference, PVR, VH, macular hole, traumatic cataract

Results

- Total # of eyes: 60
- Mean age: 26.4 ± 13.0
- Males: 49 (81.7%) eyes
- Known trauma in 35 (61.4%) eyes
- Mean initial BCVA: 20/137
- Mean overall postoperative BCVA at last follow-up: 20/64



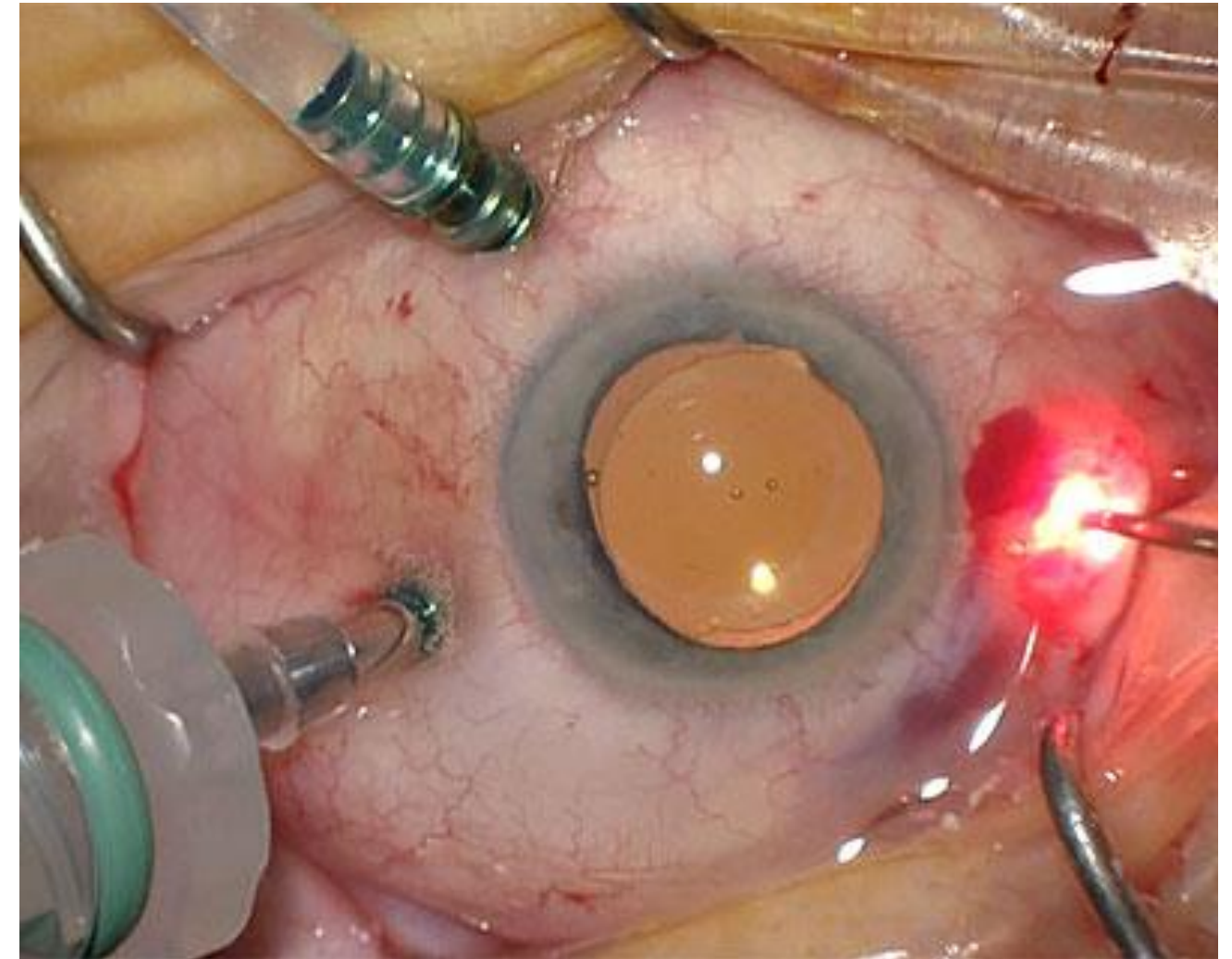
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Results

	SB alone	SB/PPV	P-value
# of eyes	49 (82%)	11 (18%)	
Mean preop BCVA	20/101	20/629	0.003
Preop macula off	27/47 (57%)	5/9 (56%)	0.92

Results

Tamponade agents in PPV	No. (%)
Silicone oil	6 (55%)
C ₃ F ₈	4 (36%)
Air	1 (9%)



Results

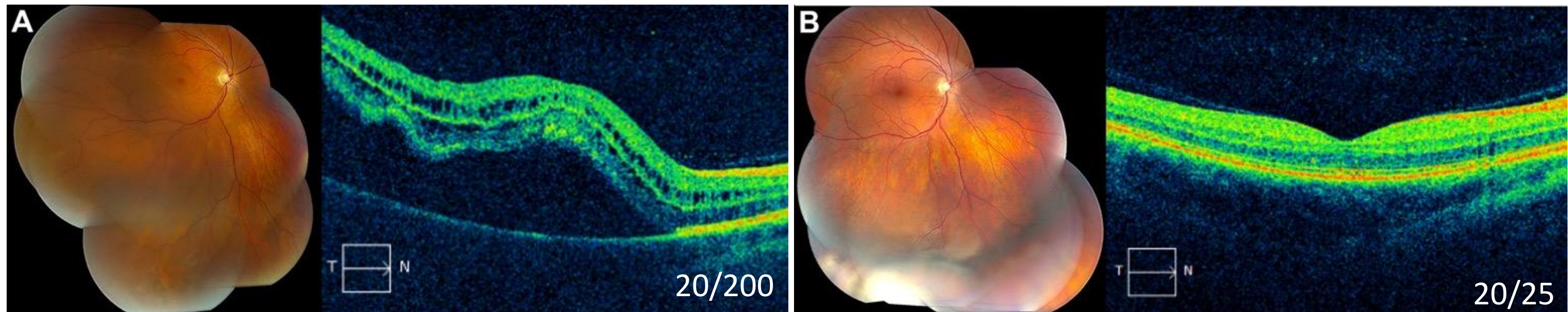
	SB alone	SB/PPV	P-value
Retina attached			
-6 months	30/39 (77%)	7/9 (78%)	0.96
-Last follow-up	49/49 (100%)	11/11 (100%)	1.00
Retained silicone oil tamponade			
-6 months		5/9 (56%)	
-Last follow-up		4/11 (36%)	
Reoperation rates	10/49 (20%)	2/11 (18%)	0.87

Results

	SB alone	SB/PPV	P-value
Delayed cataract requiring surgery			
-6 months	1/39 (3%)	1/6 (17%)	0.12
-Last follow-up	4/27 (15%)	6/6 (100%)	< 0.001

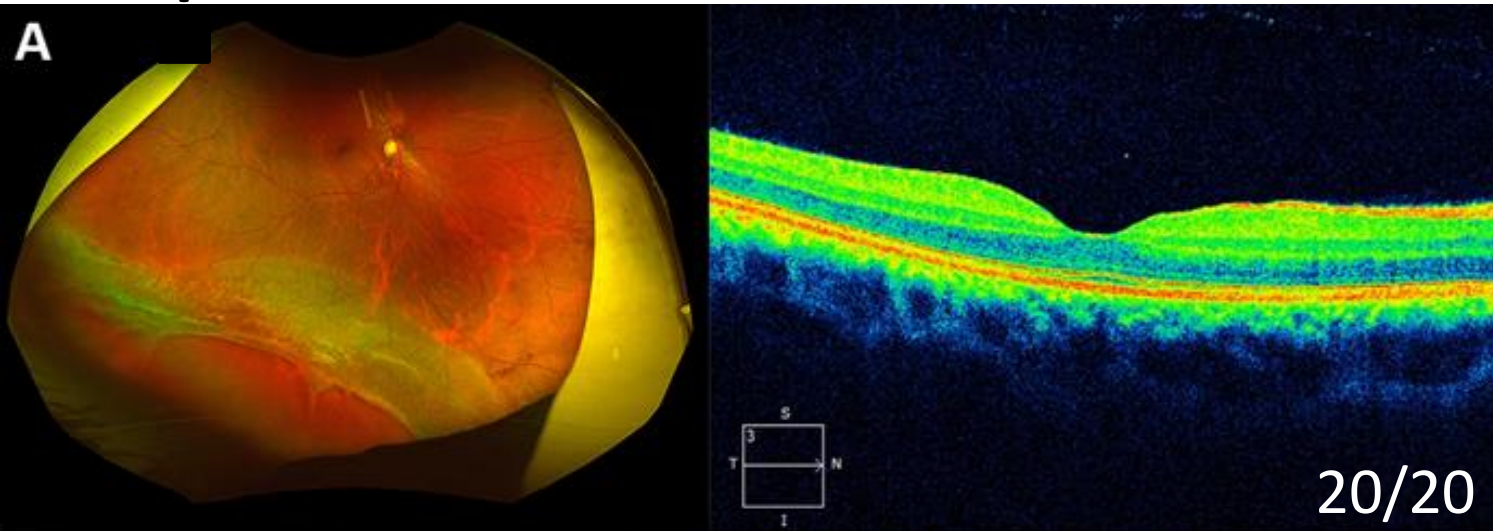
Results

	SB alone	SB/PPV	P-value
Mean BCVA at last follow-up	20/46	20/238	0.04
BCVA \geq 20/40	30 (61%)	2 (18%)	0.01
BCVA \leq 20/200	8 (16%)	6 (55%)	0.01

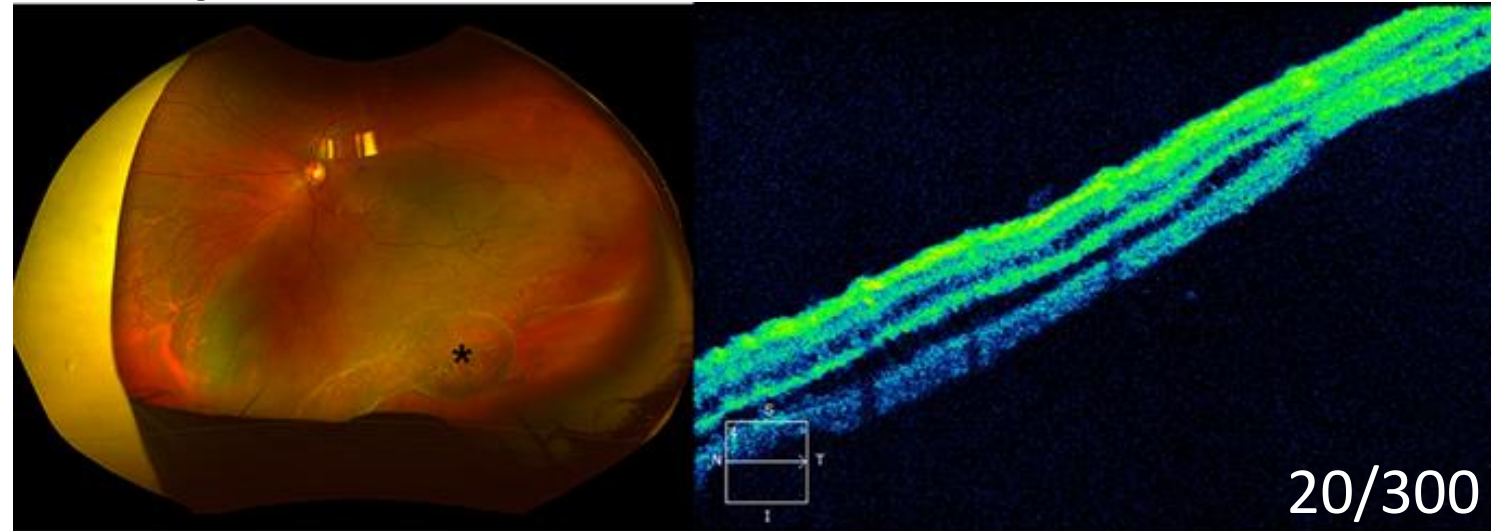


Results

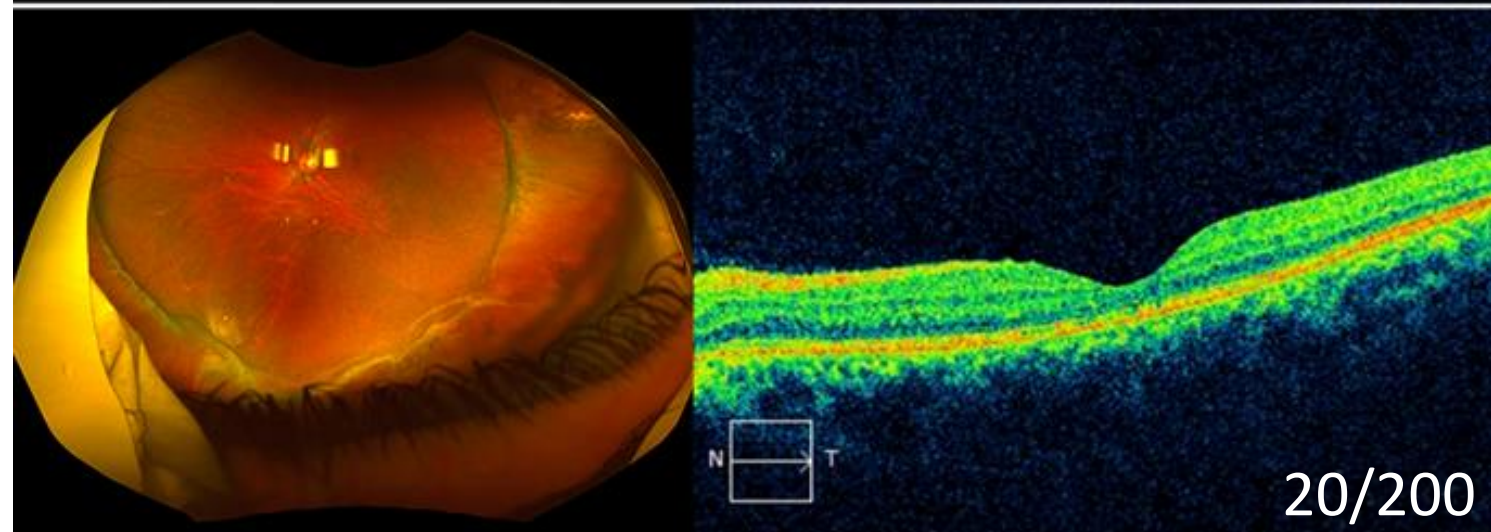
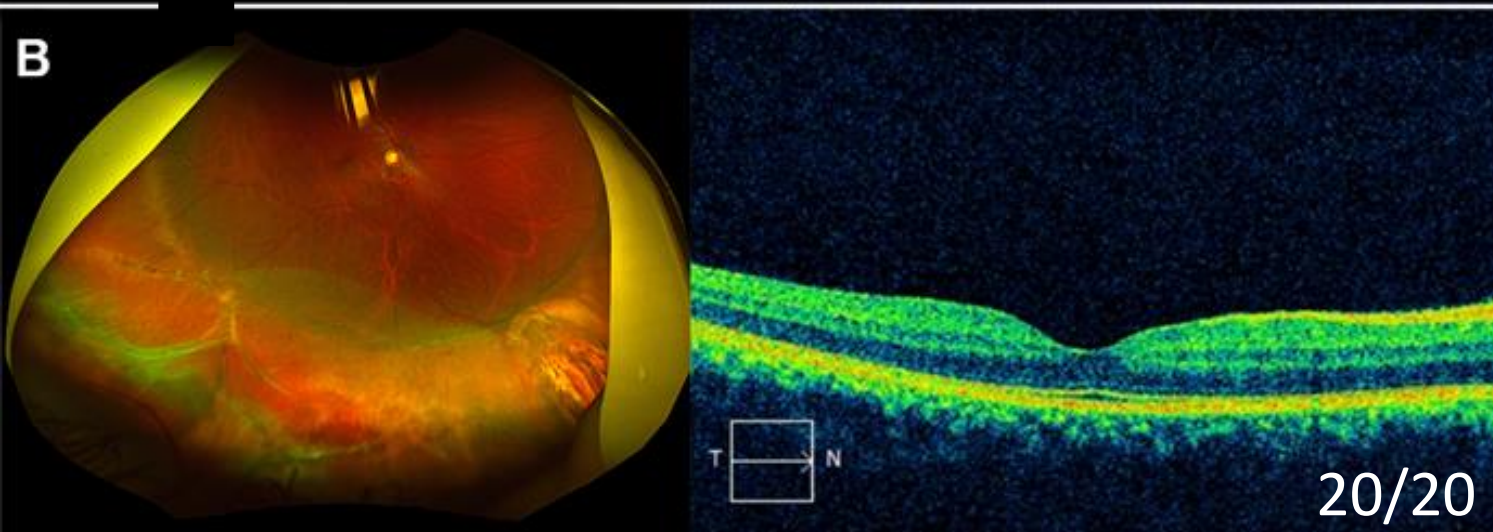
Pre-op OD



Pre-op OS



B



Post-op OD

Post-op OS



Conclusions

- The SB group had superior mean VA at last follow-up (20/46) compared to the combined SB/PPV group (20/238).
- Rates of retinal reattachment at 6 months did not differ between the SB (77%) and combined SB/PPV (78%) groups.
- The incidence of postoperative cataract formation was greater in the SB/PPV group (100%) compared to the SB group (15%).