

Anterior Chamber Angle Measurements After Multiple Anti-VEGF Intravitreal Injections in Age-Related Macular Degeneration

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NATIONAL LEADERS IN MEDICINE

Anti-VEGF Therapies in AMD



IOP Elevation

HIGH-MOLECULAR-WEIGHT AGGREGATES IN REPACKAGED BEVACIZUMAB

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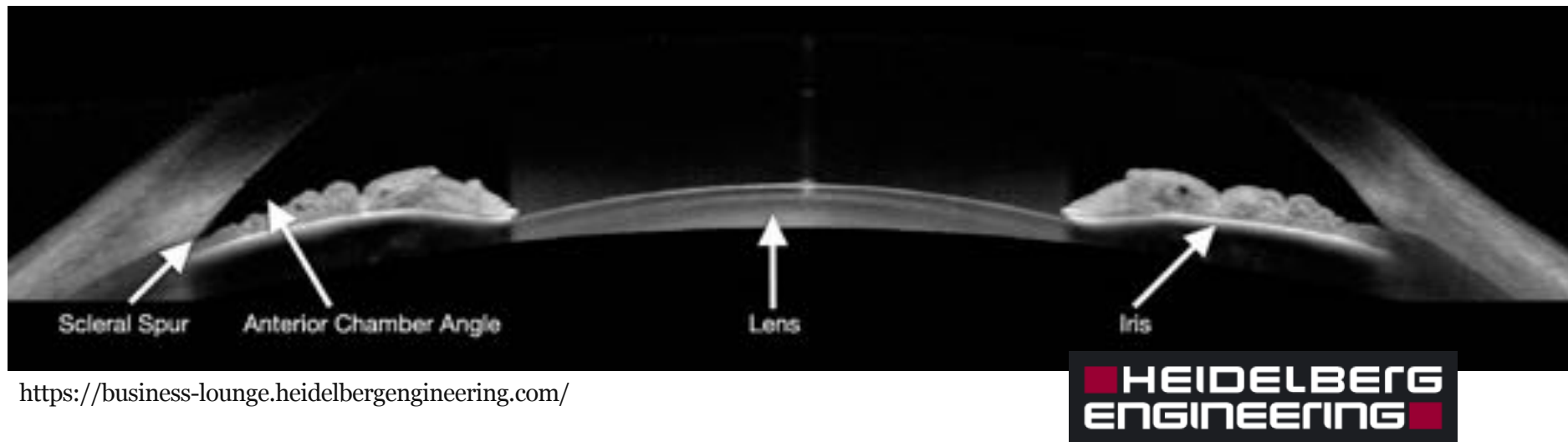
Intravitreal Anti-VEGF Injections Reduce Aqueous Outflow Facility in Patients With Neovascular Age-Related Macular Degeneration

Joanne C. Wen,^{1,2} Ester Reina-Torres,³ Joseph M. Sherwood,³ Pratap Challa,² Katy C. Liu,² Guorong Li,² Jason Y. H. Chang,³ Scott W. Cousins,² Stefanie G. Schuman,² Priyatham S. Mettu,² W. Daniel Stamer,² Darryl R. Overby,³ and R. Rand Allingham²

VEGF as a Paracrine Regulator of Conventional Outflow Facility

Ester Reina-Torres,¹ Joanne C. Wen,^{*,2} Katy C. Liu,² Guorong Li,² Joseph M. Sherwood,¹ Jason Y. H. Chang,¹ Pratap Challa,² Cassandra M. Flügel-Koch,³ W. Daniel Stamer,² R. Rand Allingham,² and Darryl R. Overby¹

Anterior Segment OCT



Study Design

- Single center, case control design
 - Recruited from Washington University in St. Louis Eye Clinic
- Inclusion criteria
 - Diagnosis of macular degeneration
 - Any three classes of anti-VEGF
- Exclusion criteria
 - Diseases that would preclude measurement of IOP, pre-existing glaucoma or use of IOP-lowering eye drops, use of topically or intravitreally corticosteroids, history of intraocular surgery other than cataract extraction
 - Asian ethnicity

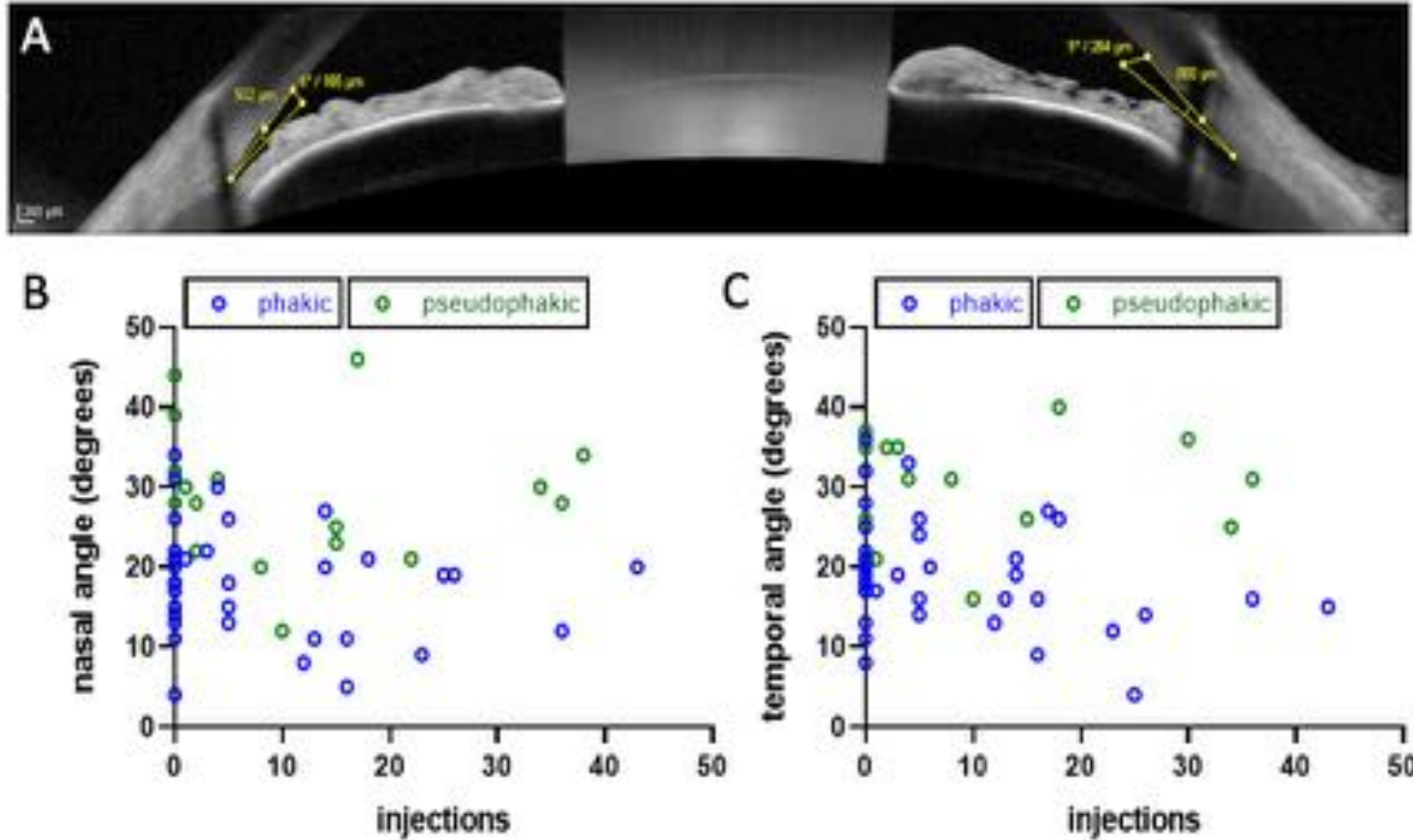
Methods

- Complete ophthalmic examination
- Imaging with Spectralis Anterior Segment Optical Coherence Tomography (AS-OCT)
- Nasal and temporal anterior chamber angles measured using Spectralis software
- Binary logistic regression model
 - Forced entry of number of injections
 - Automated forward selection by likelihood ratio of : age, sex, dilation status, maximum IOP, initial IOP, and phakic status

Results

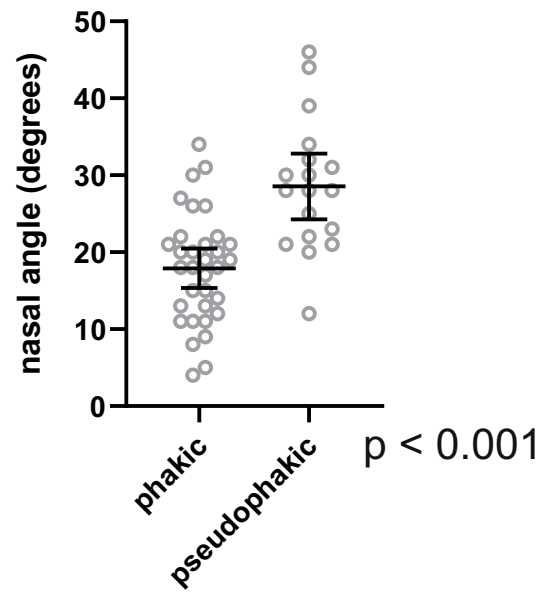
Age, mean (SD)	57.82 (7.79)
Number of injections, mean (SD)	9.25 (11.76)
Number of injections, median (range)	4 (0 – 43)
Sex	
Male	20 (32.8%)
Female	41 (67.2%)
Phakic status	
Phakic	37 (60.7%)
Pseudophakic	24 (39.3%)

Results

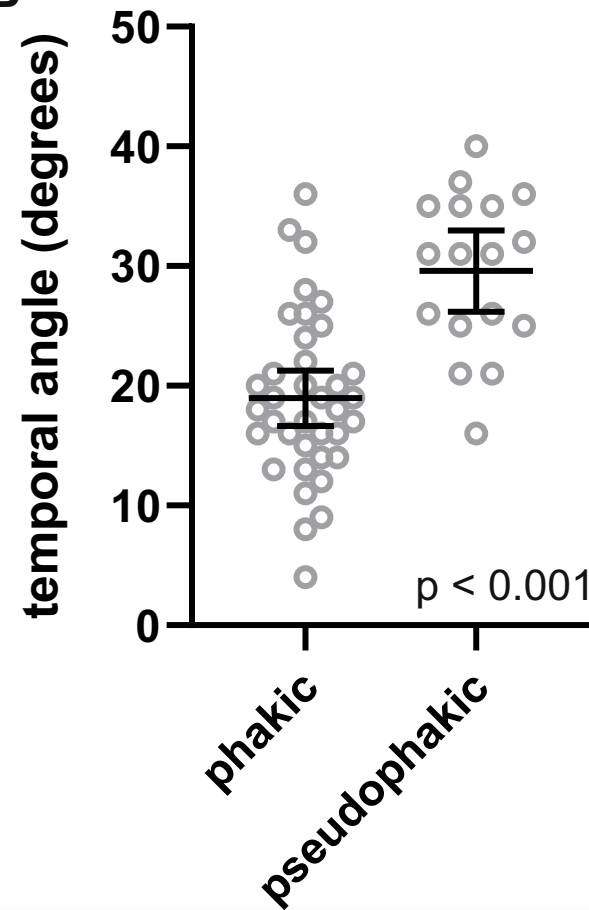


Phakic Status

A



B



Conclusion

- No statistically significant correlation between number of intravitreal injections and anterior chamber angle
- Pseudophakia is associated with larger anterior chamber angles compared to phakia
 - In line with prior data reporting 6-12° enlargement

Thank You

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