

MACULAR MALADIES: TYPICAL & ATYPICAL CASES

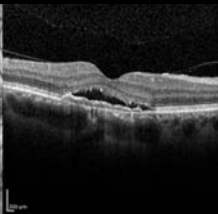
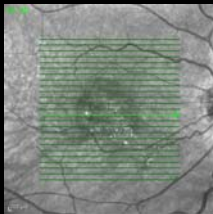
Dawn Pewitt, OD, FAAO
Triad Eye Institute, Grove, OK
dpewitt@triadeye.com

COPE 51218-PS

Please silence all mobile devices.

Disclosure Statement:
No financial disclosures

WHAT MACULAR MALADY IS THIS?



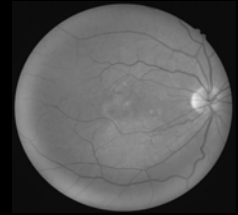
- a. Acute CSCR
- b. Exudative Macular degeneration
- c. Chronic CSCR
- d. Nonexudative Macular degeneration

10/21/2014, OD
RIMCCT 30° ART (H) AMT01 Q. 26

HEIDELBERG
SPECTRALIS

CASE #1

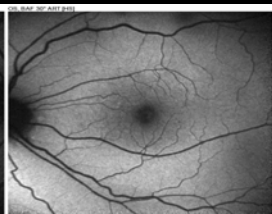
- Brief case history: 60 yo male with c/o moderate central blur in OD x 6 weeks
- BCVA 20/40 OD, 20/20 OS
- Metamorphopsia noted on Amsler grid OD



CASE #1

OD guttering

OS normal



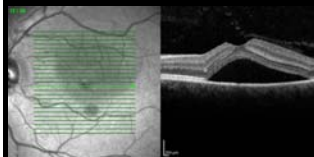
10/21/2014, OD
RIMCCT 30° ART (H) AMT01 Q. 26

10/21/2014, OS
RIMCCT 30° ART (H) AMT01 Q. 26

Differential Diagnosis

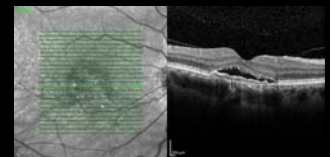
Acute CSCR

Chronic CSCR



10/21/2014, OD
RIMCCT 30° ART (H) AMT01 Q. 26

HEIDELBERG
SPECTRALIS



10/21/2014, OD
RIMCCT 30° ART (H) AMT01 Q. 26

HEIDELBERG
SPECTRALIS

TREATMENT AND MANAGEMENT OF CHRONIC CSCR

- Good medical history to rule out steroid use
- Steroid hormone antagonists (i.e. eplerenone (Inspra))
- Half fluence PDT
- Sleep study to r/o apnea
- FA/ICG to evaluate for CNVM for anti-VEGF (i.e. Avastin)

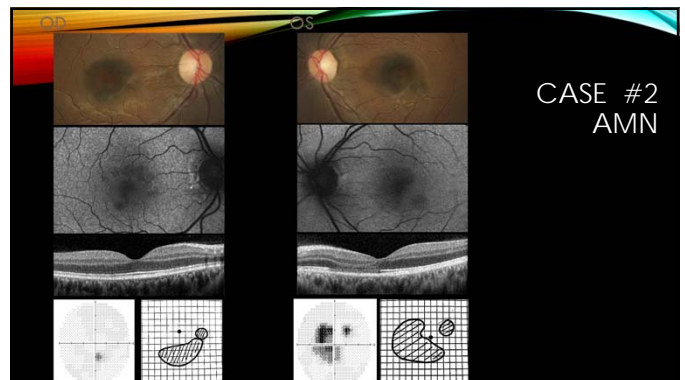
WHAT MACULAR MALADY IS THIS?



- A. Bilateral choroidal neovascularization
- B. Acute macular neuroretinopathy
- C. Commotio retinae
- D. Bilateral RPE hyperplasia

CASE #2

- Brief case history
 - 25 yo male presents w/ h/o MVA 1 week ago c/o "black smudge" in vision
- Entrance acuity 20/20 OD, OS
- Amsler: Multiple paracentral scotomas in both eyes
- Fundus findings:
 - OD & OS: parafoveal deep greyish lesions



CASE #2 AMN

CLINICAL PEARLS FOR AMN

- Acute paracentral scotomas corresponding to retinal lesion.
- Visual changes may be acute transient or permanent.
- Outer retinal structures are affected.
- Variants:
 - Type 1 AMN: may be caused by ischemia of the superficial capillary plexus (INL/OPL)
 - Type 2 AMN: may be caused by ischemic insult to the deep capillary plexus (ONL/OPL)

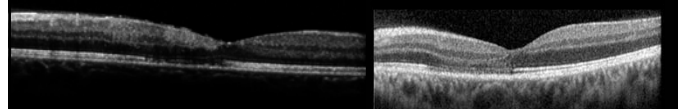
AMN SUBTYPES 1 & 2

AMN Type 1

- hyper-reflectivity of the OPL/INL junction

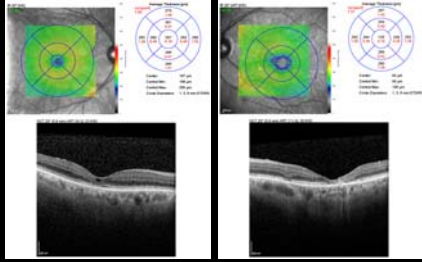
AMN Type 2

- hyper-reflectivity of the OPL/ONL junction



WHAT MACULAR MALADY IS THIS?

- A. Geographic atrophy
- B. Acute macular neuroretinopathy
- C. MacTel2
- D. Solar maculopathy

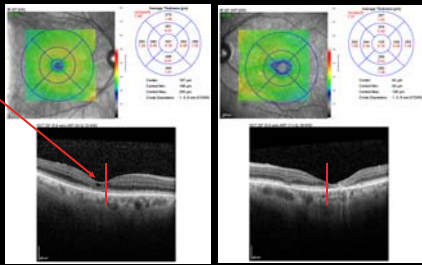


CASE #3

- Brief case history
 - 93 yo male presents w/ c/o blurred vision at near x several months
 - BCVA 20/50 OD & OS
 - Amsler: Central scotomas in both eyes

MACULAR TELANGIECTASIA (MACTEL2)

- ILM bridge is classic finding
- Temporal location is characteristic
- Commonly misdiagnosed as AMD
- Formerly known as JRT (juxtafoveal telangiectasia)

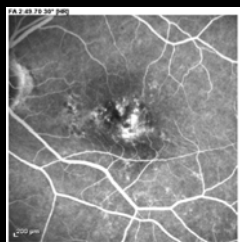


MACTEL2

- Patient returns 4 months later for c/o decreased vision OS



MACTEL2



FA suggests mixed-type CNVM



IR shows RAP lesions

MACTEL2

- 1 month post-Avastin injection



MACTEL2 WITH SECONDARY RAP

- Lesion responding well to Avastin x 2
- Consider PDT

WHAT MACULAR MALADY IS THIS?

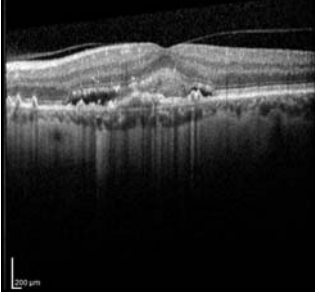
- a. Pigment Epithelial Detachment (PED)
- b. Acute Central Serous Chorioretinopathy (CSCR)
- c. Solar Maculopathy
- d. Adult Vitelliform Dystrophy

CASE #4

- Brief case history
 - 64 yo male presents w/ c/o blurred vision at distance and near x several years
 - h/o schizoaffective disorder
- BCVA 20/50-2 OD & 20/60-2 OS
- Amsler: Central scotomas in both eyes (inconsistent reports)

SOLAR MACULOPATHY

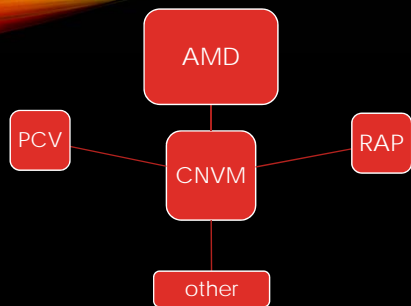
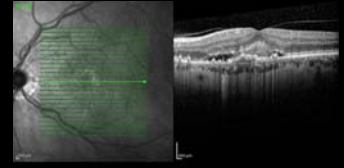
WHAT MACULAR MALADY IS THIS?



- Polypoidal choroidal vasculopathy
- Reticular dystrophy of the RPE
- Exudative AMD
- Adult vitelliform dystrophy

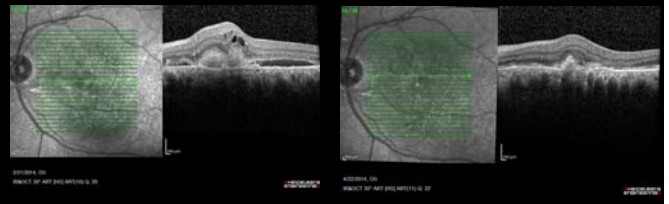
CASE #5

- Brief case history: 73 yo male with h/o HTN, type 2 DM, glaucoma suspect
- Patient c/o metamorphopsia and decreased vision x few months
- BCVA 20/20-1 OD, 20/30-2 OS

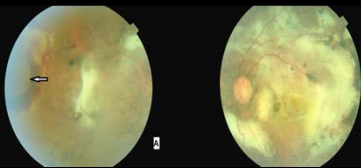


TREATMENT AND MANAGEMENT OF CHOROIDAL NEOVASCULARIZATION

- Pre-treatment
- Post Anti-VEGF injection



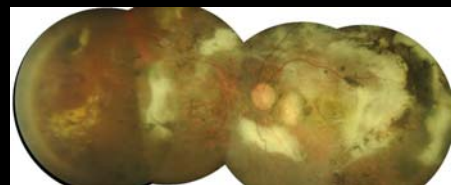
WHAT RETINAL MALADY IS THIS?



- Polypoidal choroidal vasculopathy
- Retinal angiomatous proliferation
- Peripheral exudative hemorrhagic chorioretinal retinopathy
- Sorby's pseudoinflammatory macular dystrophy
- Choroidal melanomas

CASE #6

- Brief case history: 85 yo legally blind AA male referred by outside clinic for eval of new peripheral hemorrhages
 - Entrance acuities 5/600 OD, 5/300 OS
 - Fundus findings: large edematous fibrosis, subretinal hemorrhage and large peripheral hemorrhagic PED and exudation



DIFFERENTIAL DIAGNOSES OF PEHCR

- Polypoidal choroidal vasculopathy
- Retinal angiomatous proliferation
- Sorby's pseudoinflammatory macular dystrophy



Table 5. Peripheral Exudative Hemorrhagic Chorioretinopathy Simulating Choroidal Melanoma in 173 Eyes of 146 Patients: Findings on Follow-up in 90 Eyes

Feature	Ipsilateral Eye No. (%)	Contralateral Eye No. (%) (N = 1)
Natural course of main PEHCR (n = 90 patients)		
Regression total	14 (16%)	NA
Regression partial	39 (43%)	NA
No change	27 (30%)	NA
Progression	10 (11%)	NA
Recurrent or new subretinal/sub-RPE hemorrhage (n = 90 patients)	15 (17%)	3 (9%)
Recurrent PEHCR, (same location)	3 (9%)	NA
New PEHCR, (different location)	7 (8%)	3 (9%)
Interval from initial to recurrent or new event (mo) (n = 90 patients) Mean (median, range)	11 (4, 15-60)	20 (19, 5-50)
Development of macular degeneration on follow-up		
Nonexudative macular degeneration	0 (0%)	0 (0%)
Exudative macular degeneration	7 (8%)	4 (12%)
No foveal view because of hemorrhage	5 (6%)	1 (1%)

NA = not applicable; PEHCR = peripheral exudative hemorrhagic chorioretinopathy; RPE = retinal pigment epithelium. Follow-up was 15 mo mean (median 6 mo, range 1-122 mo).

TREATMENT AND MANAGEMENT OF PEHCR

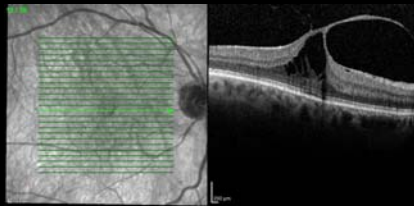
- Treatment and management
 - Monitoring if small loci of hemorrhage vs anti-VEGF or PDT if macula threatened
 - Low vision

Peripheral Exudative Hemorrhagic Chorioretinopathy Simulating Choroidal Melanoma in 173 Eyes

Ciulla F, Shields MB, Zou Y, Sauer MB, Arora RK, Shields CL, Jolly A, Shields HJ

Ophthalmology 2009;116:629-638 © 2009 by the American Academy of Ophthalmology

WHAT MACULAR MALADY IS THIS?



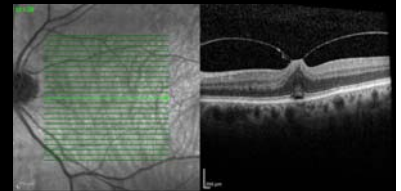
- Vitreous macular adhesion
- Vitreous macular traction
- Foveal cyst
- Macular hole

4/20/03, OD
IMAGET 207 (96) (ART) 0.29

4/20/03, OD
IMAGET 207 (96) (ART) 0.29

CASE #7

- Brief case history: 74 yo male c/o metamorphopsia OD for few months
- Acuity: 20/30 OD, 20/20 OS
- Amsler: central distortion OD

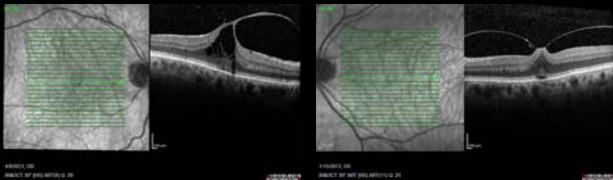


8/10/03, OS
IMAGET 307 (96) (ART) 0.29

8/10/03, OS
IMAGET 307 (96) (ART) 0.29

TREATMENT AND MANAGEMENT OF VMT

- Treatment and management
 - Observe
 - Trans pars plana vitrectomy
 - Jetrea
 - Pneumatic



8/10/03, OS
IMAGET 307 (96) (ART) 0.29

8/10/03, OS
IMAGET 307 (96) (ART) 0.29

7/10/03, OS
IMAGET 307 (96) (ART) 0.29

7/10/03, OS
IMAGET 307 (96) (ART) 0.29

WHAT MACULAR MALADY IS THIS?

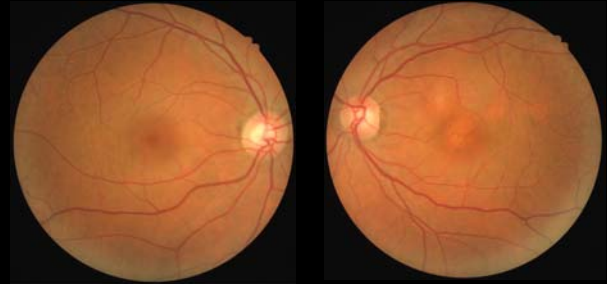


- Multiple Pigment Epithelial Detachments
- MEWDS
- Chronic Central Serous Chorioretinopathy
- Butterfly Macular Dystrophy

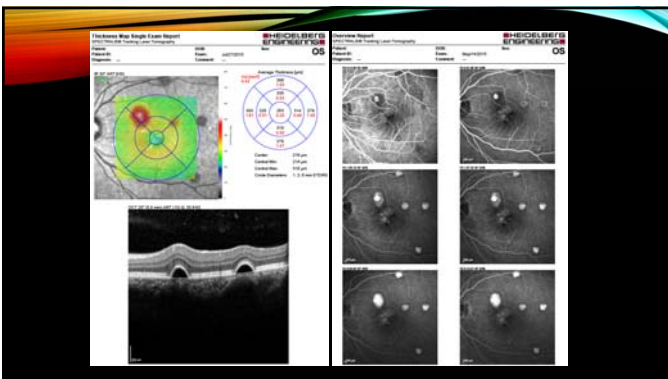
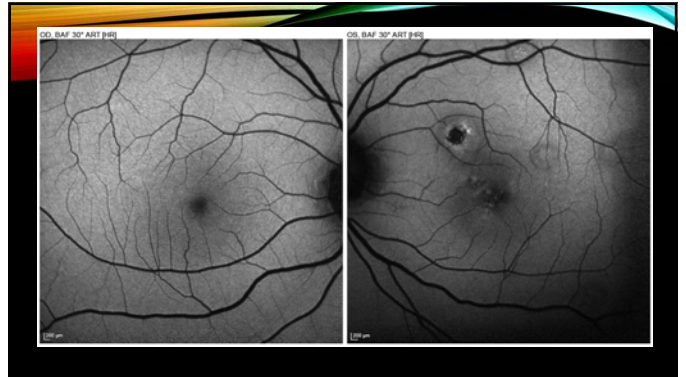
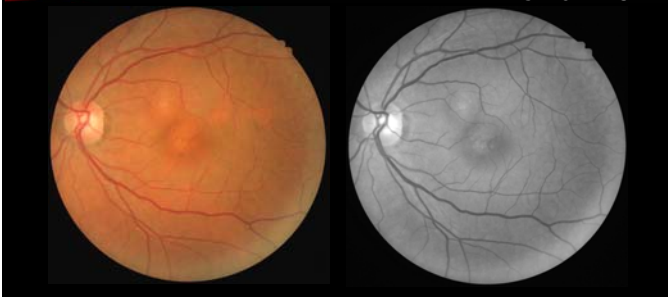
CASE #8

- Brief case history: 47 yo male c/o blurred vision at distance and near for a few months
- H/o sleep apnea (using CPAP)
- Acutities: 20/20 OD, 20/20-2 OS

CASE #8

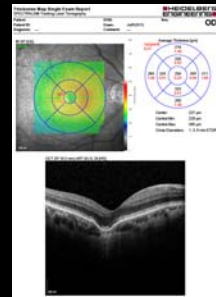


CASE #8



WHAT MACULAR MALADY IS THIS?

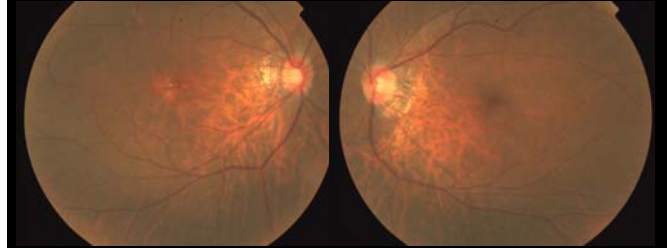
- A. Posterior Staphyloma
- B. Imaging Artefact
- C. Focal Choroidal Excavation
- D. Torpedo Maculopathy



CASE #9

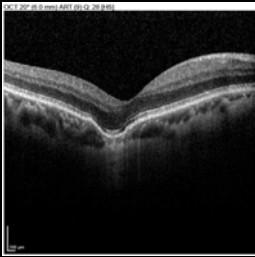
- Brief case history:
 - 69yom presents for c/o lost glasses 2 months ago
- BCVA OD 20/25 PHNI, OS 20/20 (easy)
- No Amsler grid distortion

CASE #9

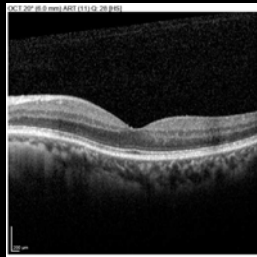


FOCAL CHOROIDAL EXCAVATION

OD



OS



WHAT MACULAR MALADY IS THIS?

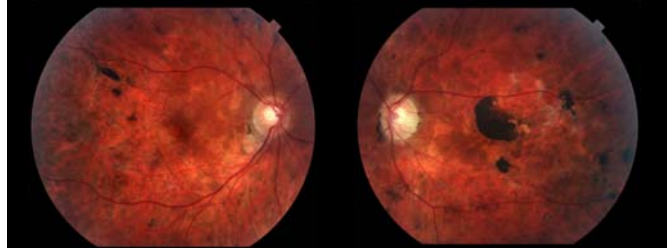
- A. Acute Posterior Multifocal Placoid Pigment Epitheliopathy (APMPPE)
- B. Ocular Histoplasmosis
- C. Birdshot Chorioretinopathy
- D. Congenital Hypertrophy of the Retinal Pigment Epithelium (CHRPE)

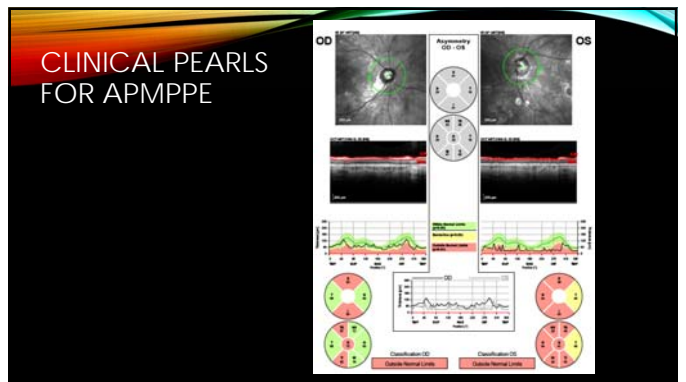
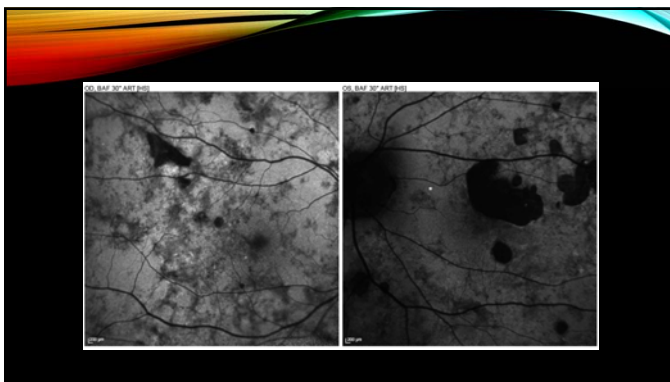
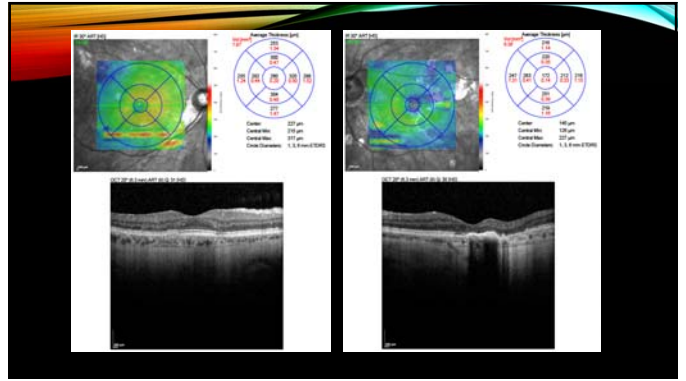
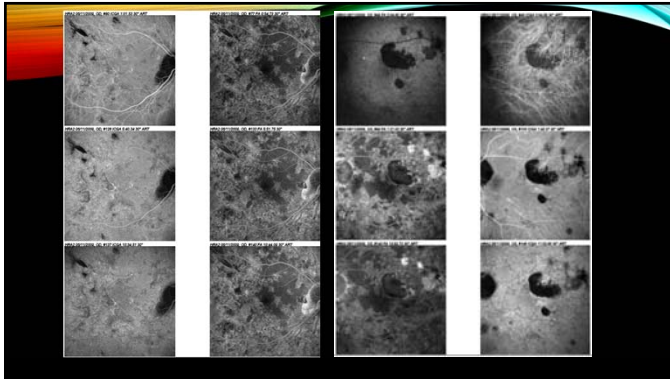


CASE #10

- Brief case history:
 - 47 yom: H/o severe flu like symptoms (in 1983) followed by HA, temporary loss of VA OU
- Subsequently dx with APMPPE
- No change in baseline floaters x years
- Denies photopsia or curtain veil
- Wears CL and is interested in LASIK OU

APMPPE





REFERENCES

- Acute Macular Neuroretinopathy: A comprehensive review of the literature. Survey of Ophthalmology (2016) 61, 539-565.
- Acute Macular Neuroretinopathy Associated with Systemic Lupus Erythematosus. Lupus (2016) 25, 431-435.
- Acute Macular Neuroretinopathy in Dengue Fever Short-Term Prospectively Followed Up Case Series. JAMA Ophthalmic (2015);133(11):1329-1333.
- Anti-Vascular Endothelial Growth Factor Agents in the Treatment of Retinal Disease. Ophthalmology (2016) 123, 578-588.
- Clinical Endpoints for the Study of Geographic Atrophy Secondary to Age-Related Macular Degeneration. Retina (2016) 36, 1806-1822.
- Electronic Medical Record Database Study of Vitrectomy and Observation for Vitreomacular Traction. Retina (2016) 36, 1897-1905.
- Half-dose Photodynamic Therapy for Chronic Central Serous Chorioretinopathy: Efficacy and Safety Outcomes in Real World. Photodiagnosis and Photodynamic Therapy (2016) 14, 173-177.
- Long-term Outcomes of Intravitreal Bevacizumab Therapy for Subretinal Neovascularization Secondary to Idiopathic Macular Telangiectasia Type 2. Retina (2016) 36, 2150-2157.
- New Associations of Classic Acute Macular Neuroretinopathy. Br J Ophthalmic (2016) 100, 389-394.
- Optical Coherence Tomographic Angiography in Central Serous Chorioretinopathy. Retina (2016) 36, 2051-2058.

REFERENCES

- Peripheral Exudative Hemorrhagic Chorioretinopathy: Polypoidal Choroidal Vasculopathy and Hemodynamic Modifications. Am J Ophthalmology (2012) 910-922.
- Quantifying Visual Dysfunction and the Response to Surgery in Macular Pucker. Ophthalmology (2016) 123, 1500-1510.
- Recovery of Foveal Photoreceptor Integrity after Vitrectomy in Eyes with an Impending Macular Hole with Vitreomacular Traction Syndrome. Retina (2016) 36, 1454-1462.
- Results of the 2-year Ocipilastin for Treatment for Symptomatic Vitreomacular Adhesion Including Macular Hole (OASIS) Randomized Trial. Ophthalmology (2016) 123, 2232-2247.
- The Pathogenesis of Early Retinal Changes of Diabetic Retinopathy. Doc Ophthalmol (2012) 124, 15-26.



CONTACT INFORMATION

Dawn Pewitt, OD, FAAO
Triad Eye Institute, Grove OK
DPewitt@TriadEye.com