





Overview

- Using advanced technology and algorithms to improve diagnostic accuracy and predict the course of advancing AMD – imaging features associated with progression – optical coherence tomography (OCT), artificial intelligence (Al), and more
- Dysregulation of the complement cascade and its implications in GA pathogenesis
- Review of relevant data from key ophthalmology meetings this past year































GA Currently Affects >5 Million People Worldwide GLOBAL PREVALENCE OF GA 25% 22% 20% 15% 10% 4.40% 5% 1.30% 0.34% 0% 65-74 75-84 >85 >90 Age Prevalence at es 21













Quality of Life is Affected by Dry AMD and GA Θ 钧 \bigcirc Sports Less exercise Less engagement with friends Household Chores Less social interactions, unsure of a clean house Personal Hygiene Too much effort to prepare for outing; social isolation Transportation Isolation from family and friends Reading 00 Need for Aids Need to carry magnifiers at all times Loss of reading as a hobby Reliance on others S, Singh RP, Patel SS, et al. How ma eptember 11, 2016. Accessed November 29, 2016. 27











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GA patients have significant impairment in dimly lit environments	Low-luminance visual acuity (LUA) is measured by placing a 2.0-log unit neutral density filter over the best correction for the eye and having the participant read the normally illuminated ETDRS chart	Low-luminance deficit (LLD) is the difference between regular VA and LLVA	In one study, the baseline low-luminance deficit in visual acuity was a strong predictor of subsequent VA loss for all levels of baseline visual acuity in GA patients

speen		The three elephants in the circus walked
A single letter may still fit into a small preserved foveal region	A single sentence read by a patient likely will hide within parafoveal atrophic areas	We could not guess what was inside the
		The two friends did - not know what time the play would start
Lindner, Maritz, et al. Determinants of reading performance in-	iyes with fowel-sparing geographic strophy. Ophthalmol Retino 3	2018/3/0/200-200





























Conservation Definition for Atrophy Associated with Age-Restatic Massier Degeneration on theT Charge and a strate lagree (

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Specificity of OCT Is all increased choroidal reflectivity evidence of atrophy? Could some be "nascent" or "incipient" atrophy? What's the threshold? WE NEED A CONSENSUS! Consensus on Classification of Atrophy ("meeting")







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the Macula	D	ETECTS SEVERAL F	UNCTIONAL DEFECT	S:
12 months 24 months	Measure GA functional progression	Identify areas of scotomas	Visual field sensitivity can be mapped to a fundus photo and compared with images obtained with other modalities	Varying stimulus intensity identifies relative sensitivity of specific areas of the retina
Sadda SP, Chaicewarthy U, Birth DG, et al.	Cirical endpoints for the study of geographic attop	ity woondary to age-winted macular degeneration.	Anima 2016;36(23) 1906-22.	54











































































			Infectious Endophthalmitis		
	At 18 Months	At 12 Months		At 18 Months	At 12 Months
Monthly	39 patients (9.5%)	25 patients (6.0%)	Monthly	2 cases confirmed	2 cases confirmed
EOM	26 patients (6.2%)	17 patients (4.1%)	EOM	2 cases confirmed	1 case suspected
Sham	12 patients (2.9%)	10 patients (2.4%)	Sham	9145 total injections (0.044%)	6331 total injection (0.047%)
	Intraocular Inflam	imation			
At 18 Months		At 12 Months		Percetaconian cont	inues to demonstr
(0.239	21 cases i per injection)	13 cases (0.21% per injection)		a favorable safety profile at 18 m	
No ev	ents of retinal vasculitis or	retinal vein occlusion			









	OAKS AND DERBY COMBINED		
	PM (N=419)	PEOM (N=420) ^b	Sham Pooled (N=417)
New-onset investigator-determined nAMD in study eye, n (%)	51 (12.2%)	28 (6.7%)	13 (3.1%)
Confirmed by reading center, N (%) At time of investigator-reported nAMD, 100% of patients had available SD-OCT and 82% had available FA for reading center evaluation	37 (8.8%)	23 (5.5%)	11 (2.6%)
Reading center-determined CNV cases on protocol- specified FA, not reported as AEs by investigators, n (%)	9 (2.1%)	4 (1.0%)	8 (1.9%)
All investigator-reported AEs are reported as new-onset nAMI Patients who developed nAMD continued treatment with stu- discretion of the investigator	D in study eye regar dy drug and receive	dless of reading cent d on-label anti-VEGF	ter confirmation therapy at the







