

48<sup>th</sup> BRAVS Meeting  
**RETINA**  
**2024**  
CONNECTING SCIENCE  
TO REAL WORLD

**April 18<sup>th</sup> to 21<sup>st</sup>**  
Royal Palm Hall  
Campinas - SP  
**Brazil**



**CIÊNCIAS MÉDICAS**  
UMA INSTITUIÇÃO FELUMA

# Extensive Macular Atrophy with Pseudodrusen (EMAP): Report of two cases

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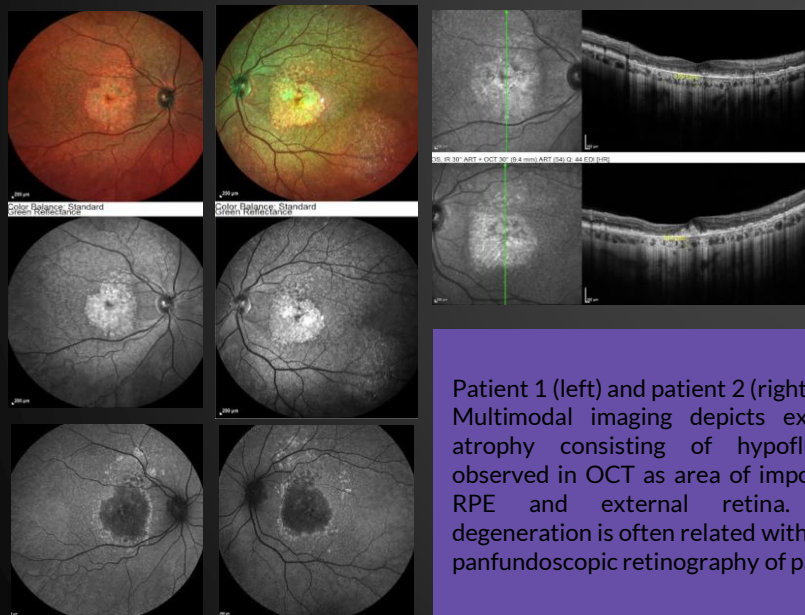
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## CASE REPORT

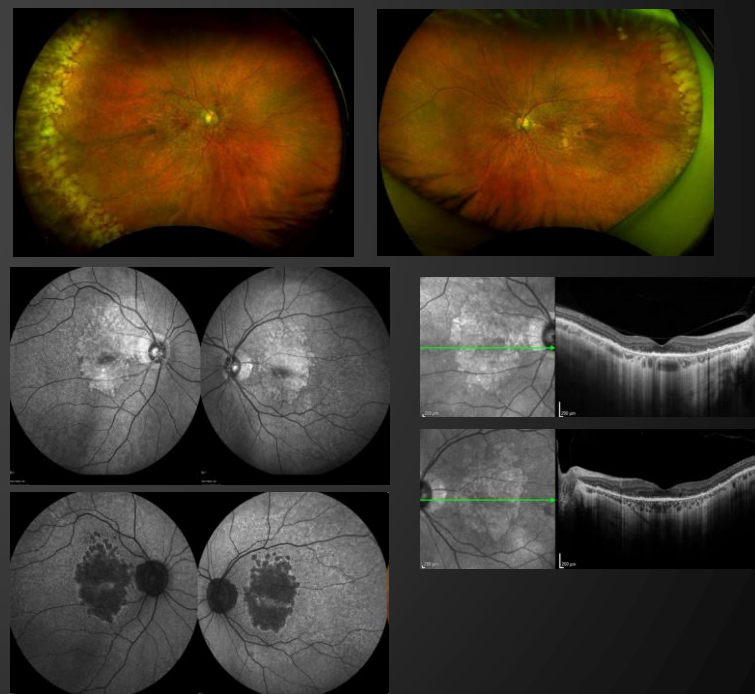
- Two patients with EMAP were evaluated and multimodal imaging was performed.
- Both were female, ages of 56 and 53.
- Positive history of rheumatic disease and use of benzathine penicillin was observed in both patients, and valve disease associated in one of them.
- Paving stone degeneration was observed in both patients. Visual acuity at presentation varied from 20/200 to 20/400.

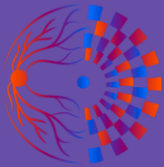
	GENDER	AGE	BVCA (SNELLEN)	HISTORY OF RHEUMATIC DISEASE?	VALVE DISEASE ASSOCIATED?	PAVING STONE DEGENERATION ASSOCIATED?	SUBFOVEAL CHOROIDAL THICKNESS (OCT)
PATIENT 1	FEMALE	56	20/200 OU	YES	NO	YES	OD = 174 µm/ OE = 148 µm
PATIENT 2	FEMALE	53	20/400 OD / 20/200 OS	YES	YES	YES	OD = 129 µm/ OE = 142 µm

# MULTIMODAL IMAGING



Patient 1 (left) and patient 2 (right). Multimodal imaging depicts extensive macular atrophy consisting of hypofluorescent area, observed in OCT as area of important atrophy of RPE and external retina. Paving stone degeneration is often related with EMAP as seen in panfundoscopic retinography of patient 2.





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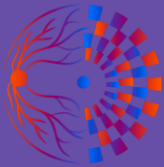
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## DISCUSSION

- Extensive macular atrophy with pseudodrusen (EMAP) represents a complex and challenging condition within the spectrum of age-related macular degeneration (AMD).
- This entity presents as widespread geographic atrophy (GA) associated with pseudodrusen.
- The term "pseudodrusen" refers to yellowish subretinal drusenoid deposits located above the level of the retinal pigment epithelium (RPE), and may also be related with AMD, retinal dystrophies and acquired vitelliform lesions.
- Advanced age, female gender and genetic predisposition have been identified as significant risk factors for EMAP, although the exact mechanisms underlying its pathogenesis remain incompletely understood.
- Emerging evidence suggests a potential role of lifelong toxic exposure, complement dysregulation and inflammatory processes in the development of EMAP.
- Immune-mediated systemic conditions, chiefly rheumatic fever, might be associated.



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## REFERENCES

1. Hamel C. P., Meunier I., Arndt C., et al. Extensive Macular Atrophy with Pseudodrusen-like Appearance: A New Clinical Entity. *American Journal of Ophthalmology*. 2009;147(4):609–620.
2. Wightman AJ, Guymer RH. Reticular pseudodrusen: current understanding. *Clin Exp Optom*. 2019 Sep;102(5):455-462.
3. Kovach JL. Extensive Macular Atrophy with Pseudodrusen Imaged with OCT Angiography. *Case Rep Ophthalmol Med*. 2018 Oct 23;2018:8213097.
4. Douillard, A., Picot, MC., Delcourt, C. *et al*. Dietary, environmental, and genetic risk factors of Extensive Macular Atrophy with Pseudodrusen, a severe bilateral macular atrophy of middle-aged patients. *Sci Rep* 8, 6840 (2018).
5. Romano F, Airaldi M, Cozzi M, Oldani M, Riva E, Bertoni AI, Dautaj A, Bertelli M, Staurenghi G, Salvetti AP. Progression of Atrophy and Visual Outcomes in Extensive Macular Atrophy with Pseudodrusen-like Appearance. *Ophthalmol Sci*. 2021 Mar 19;1(1):100016.
6. Watanabe SES, Quercia AZF, Sacai PY. Electrophysiological findings in extensive macular atrophy with pseudodrusen. *Doc Ophthalmol*. 2023 Oct;147(2):121-130. doi: 10.1007/s10633-023-09941-y