

Case Series of Extensive Macular Atrophy With Pseudodrusen (EMAP) correlated with Rheumatic Fever and Benzathine Penicillin

Purpose: to report a series of 10 cases of extensive macular atrophy pseudodrusen correlated with rheumatic fever of a single service in São Paulo, Brazil

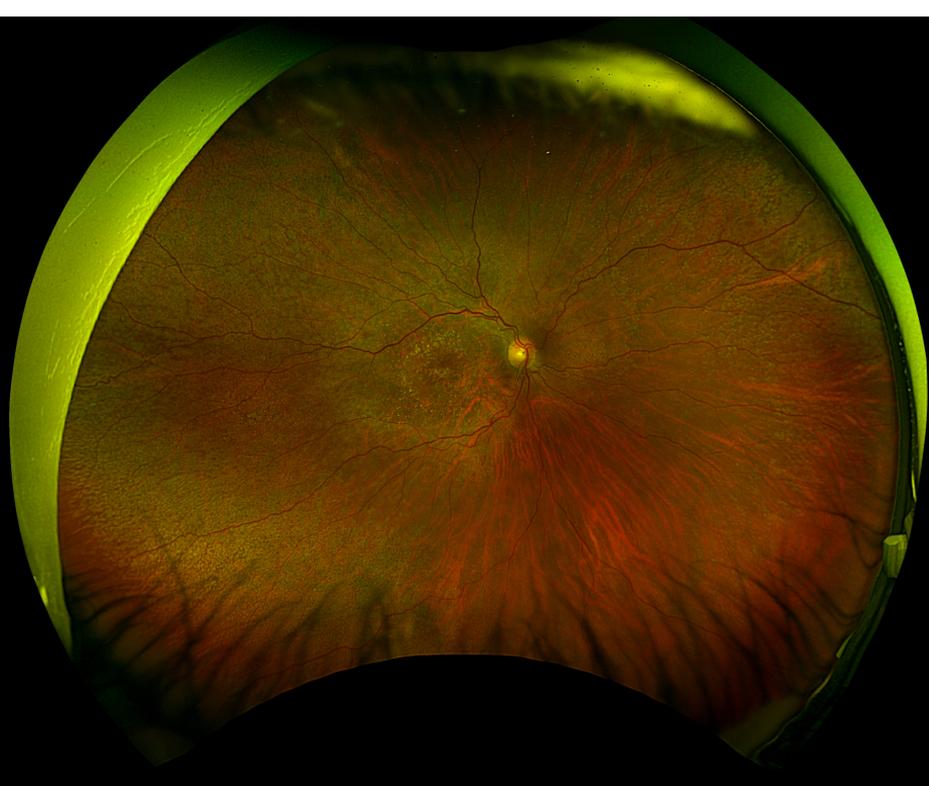
Methods: this is an observational retrospective study. The database of an outpatient clinic in São Paulo was screened for patients who were diagnosed with EMAP from 1st March of 2022 to 28th February of 2023. The patients of all genders and age range from 40 to 70 years old were included. And only patients that fulfilled the diagnostic features of EMAP were included. Patients must have presented bilateral and symmetric extensive geographic atrophy and/or presence of pseudodrusen involving the posterior pole without foveal sparing with a diameter larger in vertical than horizontal. All patients were submitted to colorful retinography as well as autofluorescence photograph and optical coherence tomography. All patients were asked at the time of the visit if they had past medical history of rheumatic fever and if received treatment of benzathine penicillin. Patients who might present any suspicious characteristic of age-related macular degeneration (AMD) wet or dry form were excluded. Also, any other suspect of known retinal dystrophies or concomitant retinal disease were excluded.

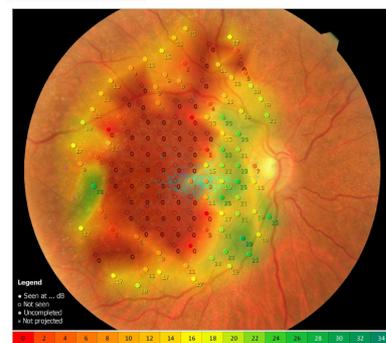
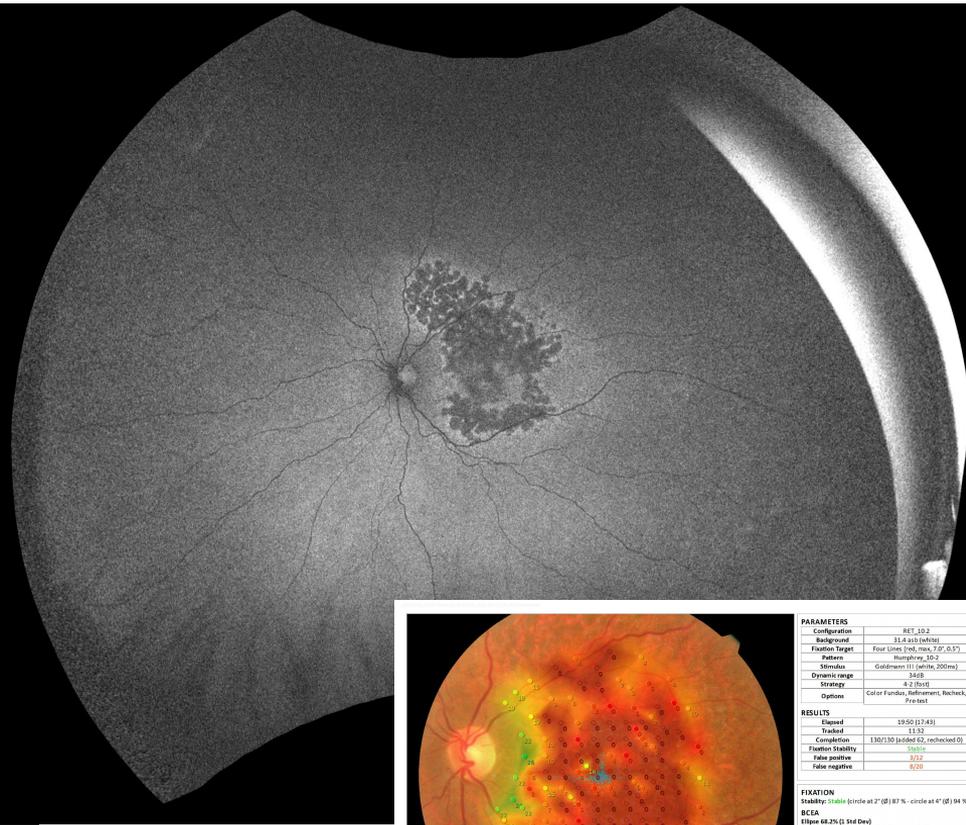
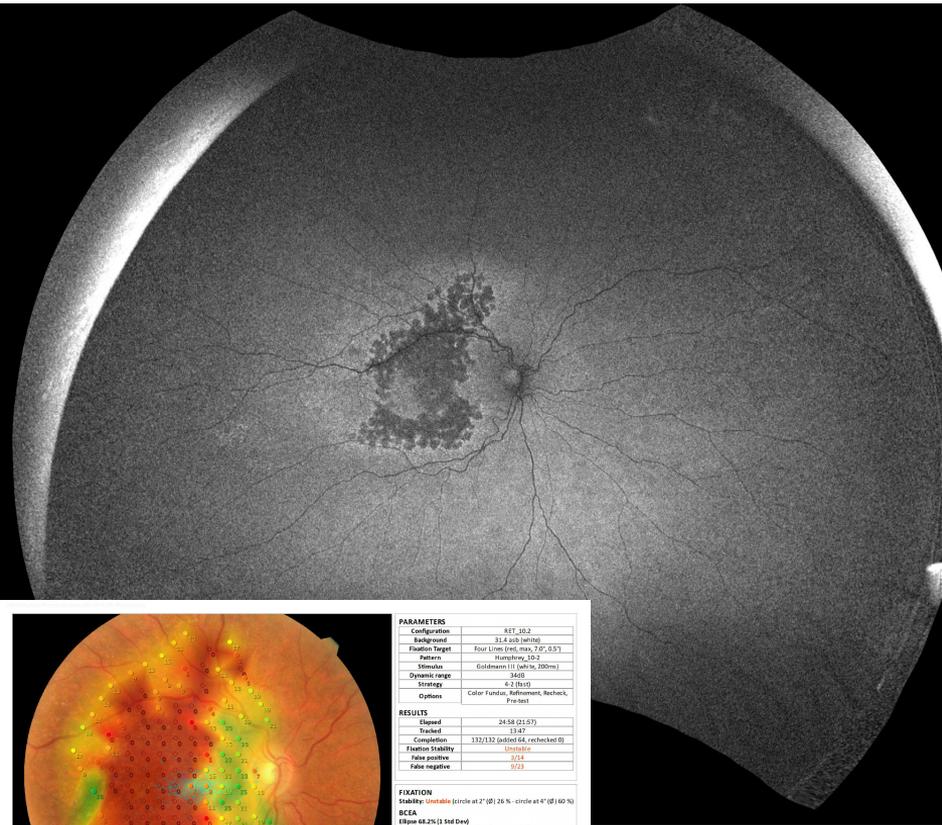
Results Ten patients matched the eligibility criteria. Gender was distributed in 8 (80%) females and 2 (20%) males. Age ranged from a minimum of 45 years old (y/o) and maximum of 70 y/o. Also, mean age was 60 y/o and median 62 y/o with a pattern deviation of 6y/o.

8 (80%) patients mentioned that have had been diagnosed with rheumatic fever and/or have been treated with benzathine penicillin when they were younger. However, the remaining 2 (20%) could not deny or recall if they had any medical history related to that.

Discussion

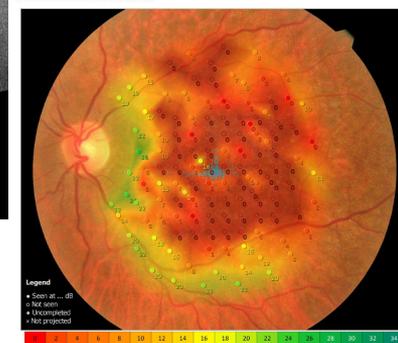
Our series of cases is similar to worldwide case reports. To this date, there is no scientific literature mentioning any correlation to rheumatic fever condition or to its treatment with benzathine penicillin.





PARAMETERS	
Configuration	RET_30-2
Background	31.4 axis (mf/fo)
Fixation Target	Fixed Lines (mf, min, 3.37, 0.53)
Pattern	Humphrey_30-2
Stimulus	Goldmann II (white, 200ms)
Dynamic range	34dB
Strategy	4-2 (f/ht)
Options	Color Fundus, Refinement, Recheck, Pre-test
RESULTS	
Elapsed	24.58 (21.57)
Tracked	11/12
Completion	132/132 (passed/0, unchecked/0)
Fixation Stability	Unstable
False positive	3/14
False negative	9/23
FIXATION	
Stability	Unstable (circle at 2° (0) 26 % - circle at 4° (0) 60 %)
BCVA	
Fixate	48.2% (1 S&M Dev)
Area 16.3°	Major axis 3.3° - Minor axis 1.6°
Fixate	34.4% (2 S&M Dev)
Area 43.3°	Major axis 5.3° - Minor axis 2.6°
Fixate	26.0% (3 S&M Dev)
Area 82.0°	Major axis 7.4° - Minor axis 3.6°
Area	Unset 1.2°

Zoom ratio: 123%



PARAMETERS	
Configuration	RET_30-2
Background	31.4 axis (mf/fo)
Fixation Target	Fixed Lines (mf, min, 3.37, 0.53)
Pattern	Humphrey_30-2
Stimulus	Goldmann II (white, 200ms)
Dynamic range	34dB
Strategy	4-2 (f/ht)
Options	Color Fundus, Refinement, Recheck, Pre-test
RESULTS	
Elapsed	19.50 (17.43)
Tracked	11/12
Completion	130/130 (passed/0, unchecked/0)
Fixation Stability	Stable
False positive	3/14
False negative	8/20
FIXATION	
Stability	Stable (circle at 2° (0) 87 % - circle at 4° (0) 94 %)
BCVA	
Fixate	48.2% (1 S&M Dev)
Area 4.3°	Major axis 1.6° - Minor axis 0.8°
Fixate	26.0% (2 S&M Dev)
Area 11.0°	Major axis 2.3° - Minor axis 1.3°
Fixate	26.0% (3 S&M Dev)
Area 21.1°	Major axis 3.7° - Minor axis 1.8°
Area	Unset 0.7°

Zoom ratio: 138%

