



Case report: Dengue viral acute diffuse maculopathy

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Purpose

- **Dengue is a viral infection**, endemic in over 100 countries, typically in **tropical and urban areas**. Dengue's **ocular manifestations are rare, but relevant**. Its prognosis range from **complete resolution to permanent loss of vision quality**. Data on dengues ocular complications are still **scare in the literature** as well as references with longer follow-ups in a case. The purpose of this presentation is to **report a clinical case of dengue maculopathy after 3 years of clinical evolution**.

Case Report:

- Male, 31 years old, from Santos - SP, complains of sudden loss of the central vision in both eyes (OU) 3 years ago.
Doesn't feel pain, trauma or any other ocular symptoms at the onset. However, relates an important fever and prostration at the occasion. This symptoms, made him look for a hospital where he was examined, he had a clinical diagnosis of Dengue fever (no blood test) and the clinical support necessary.
- Nowadays, he maintains bilateral central scotomas, which are stable since then.
- Denies comorbidities, family history of ocular or systemic diseases and also use of medications.
- **Ophthalmologic Examination:**

Best corrected visual acuity:

Right eye (RE): 20/40 Left eye (LE): 20/60

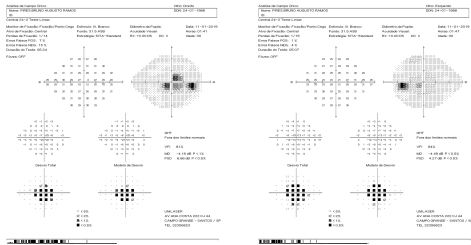
Biomicroscopy (OU): no alterations

Fundoscopy (OU): optic disk and vessels preserved. Rarefaction of retinal pigment epithelium (RPE) in circumscribed macular region.

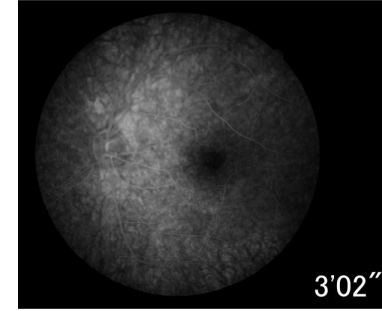
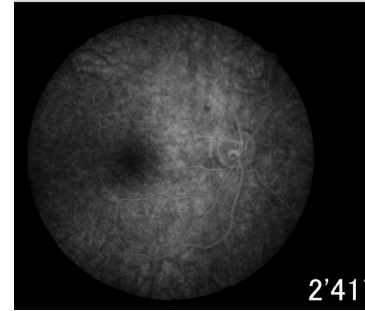


Case Report: Complementary Exams

→ **Visual Field Test (OU):**
Heighten indexes (MD, PSD);
bilateral fair central scotoma



→ **Angiofluoresceinografia (OU):** diffuse fluorescence alteration at RPE; flocculated aspect. Alterations involve: avascular, homogeneous and bilateral foveal area.



→ **Macular Optical Coherence Tomography (OCT):** thinning and enlargement of foveal depression. Multiple micro-precipitates at external retina, beneath photoreceptor layer. Preserved Pachychoroid at both eyes.

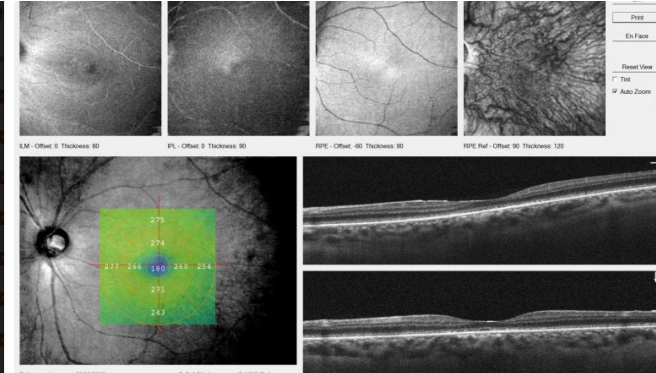
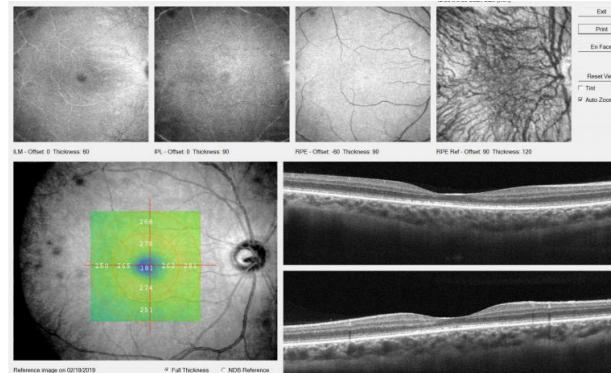
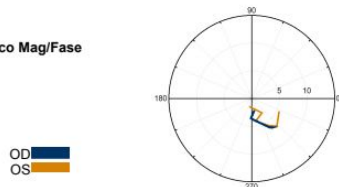
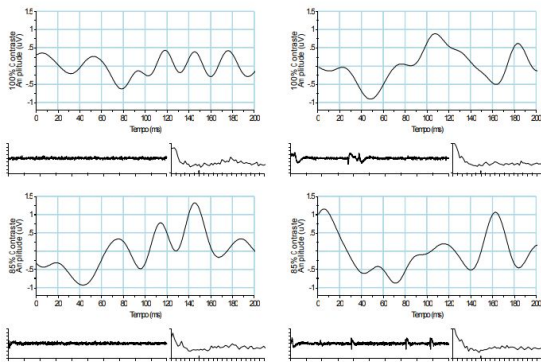


Gráfico Mag/Fase



Análise de área		OD	OS	Assimetria (%)
Razão de área	Mag	0.77	0.76	0
	Fase	1.23	1.31	7
Área (X 1000)	Mag	3.21	3.21	
	Fase	167.83	172.91	



Parâmetro	OD 100%	OD 85%	OS 100%	OS 85%
Magnitude (µV)	0.87	0.85	0.74	0.83
Magnitude D	0.14	0.26	0.10	0.22
Razão MagD/Mag	0.16	0.30	0.14	0.26
RSR (dB)	2.3	0.0	0.0	0.0
Artefatos	0	0	0	0

Electroretinography:

Fferg (OU): normal waveform - Magnitude Phase graphic is preserved in both eyes.

PERG-24:

(RE): decreased waveform amplitude with time
 (LE): decreased waveform amplitude, and enlarged pattern with time

→ Therefore, retina dystrophic diseases weren't considered; Neurodegenerative and infectious diseases were investigated **through brain image and serologies**

→ **Brain Nuclear Magnetic Resonance:** no alterations - unless there's a background of degenerative diseases;

→ **Blood test serologies:**

- 1-Tuberculin skin test: non reactor
- 2-Syphilis VDRL / FTA-ABS: non reagent
- 3- Anti-HIV 1 and 2: non reagent
- 4- Herpes simplex 1 and 2: IgM/IgG non reagent
- 5- Anti-HCV: non reagent
- 6- Chikungunya: IgM/IgG non reagent
- 7- Coxsackie A antibodies: non reagent
- 8-Coxsackie B antibody: reagent - B2, B4 e B5
- 9- Dengue: IgM non reagent/ IgG reagent (5,4 index)

Conclusion: cones and bipolar cells are preserved; ganglion cell layer represents the loss of focus; Compatible with OCT.

Discussion

- **Throughout the observation of the evolution, history and exams. Case was closed as sequel of viral Acute diffuse maculopathy. Based on clinical history, serologies and bibliography the main hypothesis was: Dengue etiology.**
- Cocksackie virus was excluded due its incompatible clinical characteristics. By comparing our case and the previously reported literature.
- Case was closed as dengue maculopathy, even though there wasn't much information about long-term follow-ups to compare. Relevant numbers of previous studies have already reported anatomical and visual sequels caused by dengue eye disease.
- As the concern about dengue has grown internationally, it's necessary to support and promote studies about the dengue eye disease. Which has the potential to cause permanent visual impairment.

References:

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