

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

# Bilateral Choroidal Neovascularization secondary to Punctate Inner Choroiditis (PIC)-AN ATYPICAL CASE

Heitor S. Nogueira, MD<sup>1</sup>; Luis Felipe C. Ogliari, MD<sup>1</sup>; Mateus P. Arruda<sup>1</sup>, MD; Leonardo D. Magri<sup>1</sup>, MD; Arthur T. F. Borges<sup>1</sup>,MD; Fernanda N. Federici, MD<sup>1</sup>, Marcio A. N. Costa<sup>1</sup>, PhD.

<sup>1</sup> Department of Retina, Penido Burnier Institute, Campinas-SP, Brazil.





## PURPOSE:

We describe a case of a female patient who presented bilateral choroidal neovascularization simultaneously as the first finding of Punctate Inner Choroidopathy.

## **METHODS**:

Case report with multimodal examination.

## **RESULTS**:

A 30-year-old female patient, caucasian, married and business woman, related a low visual acuity in the left eye for 1 week. She denied pain or other symptoms associated.

She denied personal and family medical history, and continuous use of medications.

#### **BEST-CORRECTED VISUAL ACUITY (BCVA):**

OD: 20/20 OS: 20/30

#### **BIOMICROSCOPY:**

Clear conjunctiva, transparent cornea, phakic, physiological iris, formed anterior chamber, no anterior chamber reaction in both eyes.

### FUNDUS PHOTO:

Image 1 and 2.

### FLUORESCEIN ANGIOGRAPHY:

Image 3, 4, 5 and 6.

#### **OPTICAL COHERENCE TOMOGRAPHY (OCT):**

Image 7 and 8.



#### RETINOGRAPHY (1 and 2):

- Stained optic disc, physiological excavation, macula with the presence of a yellowish lesion superior to the fovea with changes in brightness, vessels with normal anatomy and caliber, retina applied 360°.

#### FLUORESCEIN ANGIOGRAPHY (3, 4, 5 and 6):

- Presence of a hyperfluorescent point superior to the fovea associated with staining since the initial phases of the exam, suggestive of CNV (Choroidal Neovascularization). Other hyperfluorescent spots were observed in the middle upper periphery and nasal retina, without the presence of leakage or staining.



## **OPTICAL COHERENCE TOMOGRAPHY (OCT):**

- Presence of a subretinal lesion compatible with Type 1 choroidal neovascularization associated with elevation of the neurosensory retina and serous detachment of the parafoveal retina with blurring of the adjacent photoreceptor layer.

## FUNDUS AUTOFLORESCENCE (FAF):

-Hyperfluorescent lesion with hypoautofluorescent halo to foveal.

Other lesions present as a hyperautofluorescent point on examination.

## LABORATORY EXAMS:

- Negative for infectious serology tests.

## CONDUCT:

- 3 doses of Aflibercept in the left eye.

OS



(B-scan after 1 dose of Aflibercept)

## DISCUSSION AND CONCLUSION:

Punctate inner choroidopathy (PIC) is an unusual inflammatory condition of the eye, characterized by small, yellow lesions scattered across the back portion of the eye. It mainly impacts young, healthy women who are myopic. These lesions develop within the deeper layers of the retina and inner choroid, without any inflammation in the vitreous. The progression of PIC is divided into two phases: an active phase and an atrophic phase, based on the typical evolution of these lesions. The primary threat to vision in PIC patients is the formation of abnormal blood vessels beneath the retina, a condition known as choroidal neovascularization (CNV).

In this case report, specifically, the onset was a bilateral choroidal neovascularization, being treated with intravitreal injections of Anti-VEGF (Aflibercept) in left eye.

One of the major challenges in the management of patients with internal punctate choroiditis is recurrence of disease activity. Given this, new studies present promising results with systemic corticosteroid therapy and systemic immunosuppression with Mycophenolate mofetil. For the management of active choroidal neovascularization, anti-angiogenic therapies are still the best therapeutic alternatives, with several case series demonstrating positive results with Bevacizumab, Ranibizumab and Aflibercept. New studies demonstrate positive results for the use of intravitreal corticosteroid implants associated with Anti-VEGF.

Finally, I highlight the importance of monitoring these patients with periodic consultations with multimodal analysis with retinography, optical coherence tomography and, mainly, autofluorescence.

#### **REFERENCES**:

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