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# ATYPICAL MANIFESTATION OF OCULAR TUBERCULOSIS: CASE REPORT

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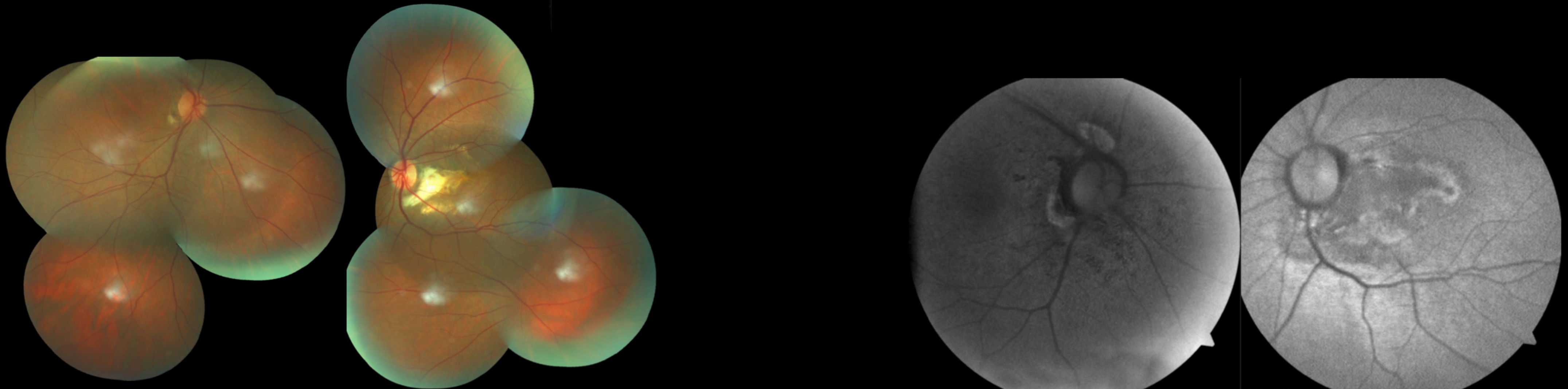
- **Purpose:** Describe the case of a patient who developed a neovascular membrane secondary to ocular tuberculosis.
- **Methods:** This is a case report study that was developed with a female patient treated at the Hospital das Clínicas da Unicamp in February, 2022. The patient in question agreed to participate in the present study, by signing the free and informed consent form.
- For the preparation of this research, we used the data collected during the anamnesis and detailed ophthalmological examination, including multimodal evaluation.
- **Case report:** A 58-year-old female patient is admitted to the ophthalmology emergency due to a progressive loss of visual acuity for approximately two weeks in the left eye. She denies any ophthalmologic history. Refers to treated hepatitis C.
- **BVAC:** 1.0/Counting fingers
- **Biomicroscopy**
  - **Right eye(RE):**Without anomalies
  - **Left eye (LE):** Conjunctival hyperemia 2+, Transparent cornea with keratic precipitates, shallow formed anterior chamber with 2+ cellularity, trophic iris, phakic, photomotor reflex present.
- **Applanation tonometry:** 20/20mmHg

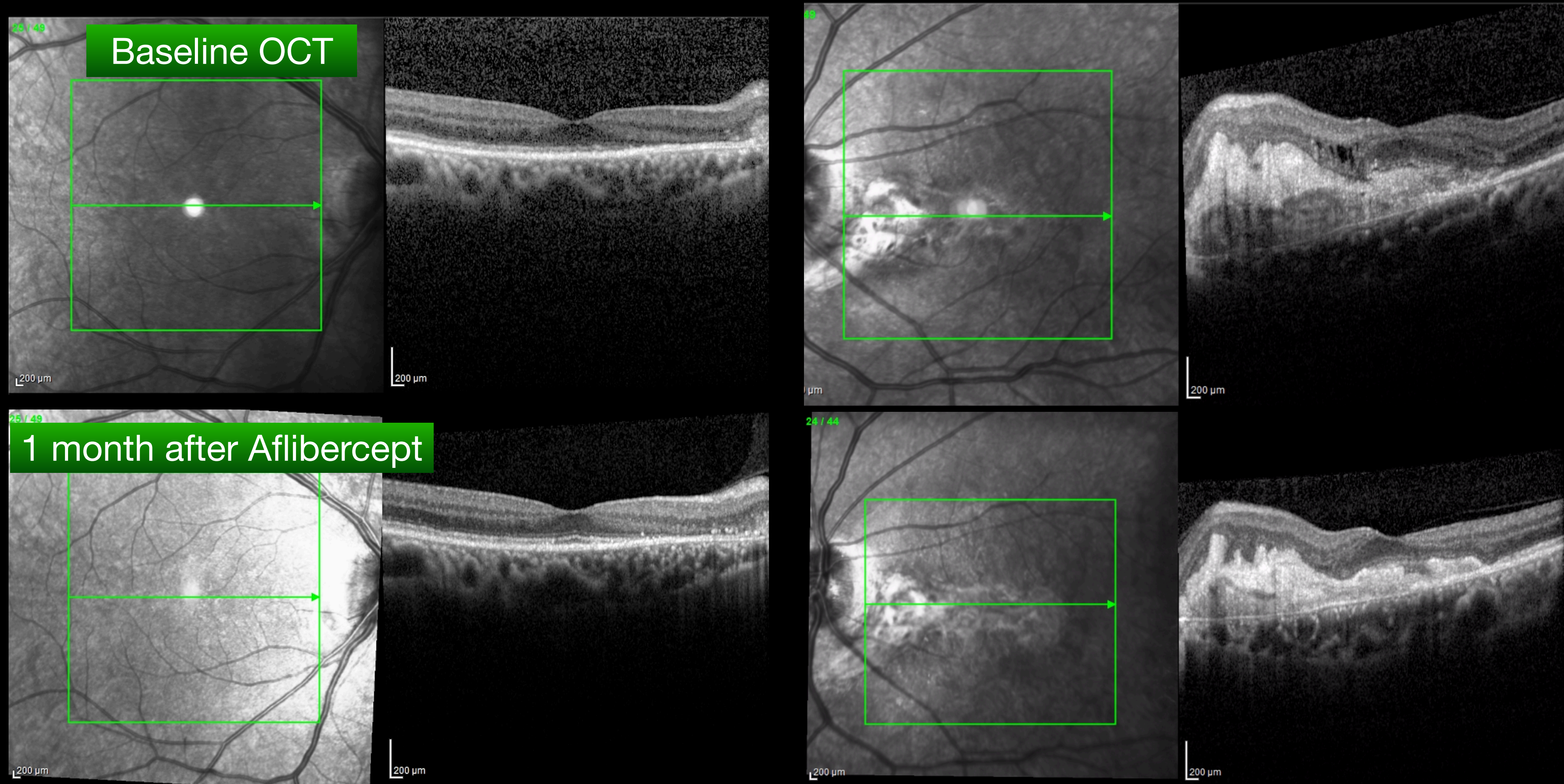
- **Fundoscopy:**

- RE: Vitreous without cellularity, retina applied in all four quadrants with sparse white lesions without exudation, apparently dry macula, tilted optic disc with physiological cupping.
- LE: Vitreous with anterior cellularity, retina applied in all four quadrants with sparse white lesions without exudation, elevated papillomacular bundle lesion extending to the grayish white macula and imprecise borders, tilted optic disc with physiological cupping.

- **Spectral domain macular optical coherence tomography:** Without changes in the right eye and in the left eye was observed a subretinal hyperreflective lesion in a papillomacular bundle associated with the presence of intraretinal fluid.

- Patient without changes in blood count, negative infectious screenings, except PPD of 20.





- Treatment with oral rifampicin, isoniazid, pyrazinamide and ethambutol was initiated and intravitreal injection of Aflibercept was indicated
- The patient showed improvement of intraretinal fluid in the left eye, and increased acuity to 1.0 and 0.1
- Patient is being followed up, without signs of macular neovascular membrane activity in a year

- **Results and discussion:** Choroidal neovascularization (CNV) can lead to significant visual morbidity when left untreated. Its main etiologies are degenerative conditions (age-related macular degeneration, pathological myopia, angioid striae) or inflammatory conditions (multifocal choroiditis). However, the incidence of CNV developing as an observed from uveitis is only 2%, with tuberculosis being an uncommon cause of CNV.
- The small occurrence of choroidal neovascular membrane (CNVM) related to ocular tuberculosis was demonstrated in a study carried out by Bansal et al, who reported that only 3.5% (5 eyes) of 105 patients (141 eyes) with a minimum follow-up of 9 months developed macular neovascularization.
- According to experimental animal models of ocular TB, the existence of localized tissue hypoxia and increased levels of VEGF in the foci of infection were demonstrated, which may explain the occurrence of CNV in cases of tuberculous uveitis.
- The recommended treatment in these cases consists of systemic antituberculosis therapy associated with intravitreal injections of anti-angiogenics, which are effective in suppressing TB-related macular neovascularization, with functional and anatomical response documented in several studies.
- In view of the above case and the exposed data from the literature, it is evident that it is of fundamental importance to recognize CNV as a potential sequel of chorioretinitis caused by TB. In this way, appropriate and early local and systemic therapy can be initiated, reducing the patient's visual morbidity.