

Presumed Ocular Histoplasmosis Syndrome: Case Report

HNICH H^{1*}, MRAD K¹, SERGHINI L¹, HAJJI Z¹, ABDELLAH E¹,
BERRAHO A¹

Ophthalmology B department, hospital of specialties, RABAT MOROCCO

**Corresponding author: HNICH H, ophthalmology B Department, hospital of specialties, 51000, RABAT MOROCCO, Telephone: +212636019034, Email: hajar.hnich93@gmail.com*

Abstract:

Presumed ocular histoplasmosis syndrome (POHS) can lead to central vision loss with development of choroidal neovascularization (CNV). Herein, we report a case of presumed ocular histoplasmosis syndrome (POHS) in morocco with choroidal neovascularization (CNV)

A 34-year-old female patient, previously healthy, presented with 8 months' history of loss of visual acuity in the left eye. On physical examination, the visual acuity of the right eye was 20/20 while the right eye was only seeing "hand motion". Fundus exam of the left eye showed juxtapapillary infiltrates with large macular lesion, and small retinal and choroidal lesions, while the right eye showed no abnormalities. Fluorescein angiography and OCT of the left eye showed evidence of chorioretinitis with probable choroidal neovascularization (CNV). The diagnosis of POHS was made at the end and the patient was treated with bevacizumab injections with no amelioration because of its late discovery.

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I. Introduction:

Presumed ocular histoplasmosis syndrome (POHS) is characterized by distinctive fundus findings in the absence of ocular inflammation and is a major cause of vision loss in young patients in endemic areas. POHS patients are at risk for significant loss of vision from central chorioretinal scarring and/or choroidal neovascularization (CNV).

II. Case Report:

A 34 years old female patient was referred to our hospital by a private ophthalmologist for a better approach of a large chorioretinal lesion involving the macula of the left eye. The referring doctor has precised in his letter that the patient was treated as presumptive toxoplasmosis for 3 months with no positive results.

The young patient has no particular history and especially no tuberculosis contagium and no animal contact, she was complaining of unilateral loss of vision since 8 months with macular syndrome.

On our physical examination of the left eye, the best corrective visual acuity was at count of fingers, slit lamp exam showed no inflammation signs, dilated funduscopy demonstrates a large yellow white lesion with irregular margins involving the macula, numerous small retinal scars were also found (figure 1,2,4). The examination of the right eye was normal (figure3).

Fluorescein angiography revealed intense hyper-fluorescence of the macular lesion (figure 5,6), hypofluorescence with hyperfluorescent margins in the inactive satellite lesions (figure 7).

As the toxoplasmosis diagnosis was excluded, the screening of the other infectious etiologies- in particular tuberculosis and sarcoidosis- was performed showing no particular abnormalities.

the diagnosis of unilateral presumed ocular histoplasmosis with probable neovascularization was taken and the patient underwent intra vitreous injection of bevacizumab but unfortunately with no amelioration.

III. Discussion

Presumed ocular histoplasmosis syndrome (POHS) is a multifocal choroiditis which is linked to infection with the fungus *Histoplasma capsulatum*. The fungus is found in soil as a mold and in animals and birds as a yeast. More than 90% of patients with typical eye findings have a positive skin reaction to intracutaneous histoplasmin. Primary infection involves the inhalation of spores into the respiratory tract and is manifested by a self-limited flulike illness. Dissemination of the fungus then occurs to the spleen, liver, and choroid. It is believed that granulomatous, clinically inapparent inflammation occurs at the level of the choroid during primary infection. As the infection resolves, small, atrophic scars ("histo spots") develop. POHS

affects young and middle-aged adults and is a major cause of choroidal neovascularization in patients younger than 50 years of age.

Our patient's fundus examination was consistent with POHS even though she did not have any history of spelunking or living in endemic areas, she didn't either endorse exposure to animals. The screening of other pathologies that can relate with the clinical presentation was negative.

The CNV didn't respond well to intravitreal bevacizumab treatment probably due to the delay of treatment.

References

- [1]. Ehrlich R., Ciulla T. A., Maturi R., et al. Intravitreal bevacizumab for choroidal neovascularization secondary to presumed ocular histoplasmosis syndrome. *Retina*. 2009;29(10):1418–1423. doi: 10.1097/IAE.0b013e3181babdf1.
- [2]. Liu TYA, Zhang AY, Wenick A. Evolution of Choroidal Neovascularization due to Presumed Ocular Histoplasmosis Syndrome on Multimodal Imaging including Optical Coherence Tomography Angiography. *Case Rep Ophthalmol Med*. 2018 Feb 13;2018:4098419. doi: 10.1155/2018/4098419. PMID: 29651354; PMCID: PMC5830978.
- [3]. Diaz RI, Sigler EJ, Rafieetary MR, Calzada JI. Ocular histoplasmosis syndrome. *Surv Ophthalmol* 2015;60:279–295.
- [4]. Richey BF, Obrock RS, Gee ZM, Lu DY, Jacobsen G, Richards SC. SMOKING, RURAL RESIDENCE AND DIABETES AS RISK FACTORS FOR PRESUMED OCULAR HISTOPLASMOSIS SYNDROME. *Retina*. 2022 Feb 1;42(2):369-374. doi: 10.1097/IAE.0000000000003322. PMID: 34690340; PMCID: PMC8765210.
- [5]. Benedict K, Shantha JG, Yeh S, Beer KD, Jackson BR. Presumed ocular histoplasmosis syndrome in a commercially insured population, United States. *PLoS One*. 2020 Mar 13;15(3):e0230305. doi: 10.1371/journal.pone.0230305. PMID: 32168355; PMCID: PMC7069623.

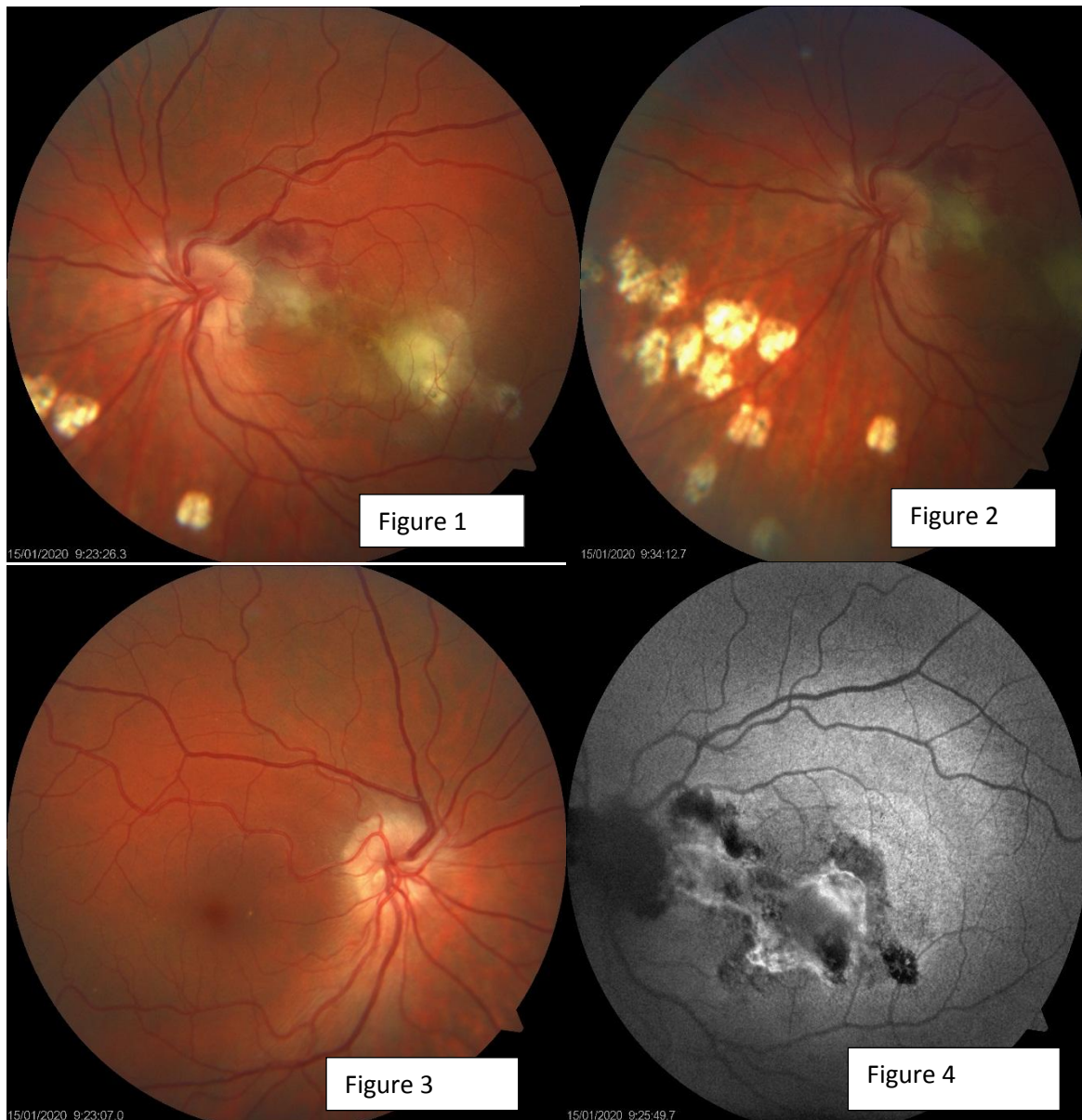


Figure 1, 2: funduscopy of the left eye demonstrating a large yellow white lesion with irregular margins involving the macula, numerous small peri papillare retinal scars were also found

figure 3: funduscopy of the right eye with no abnormalitie

figure 4: fundus autofluorescence of the left eye showing the hyper auto fluorescent lesion with subretinal hemorrhage.

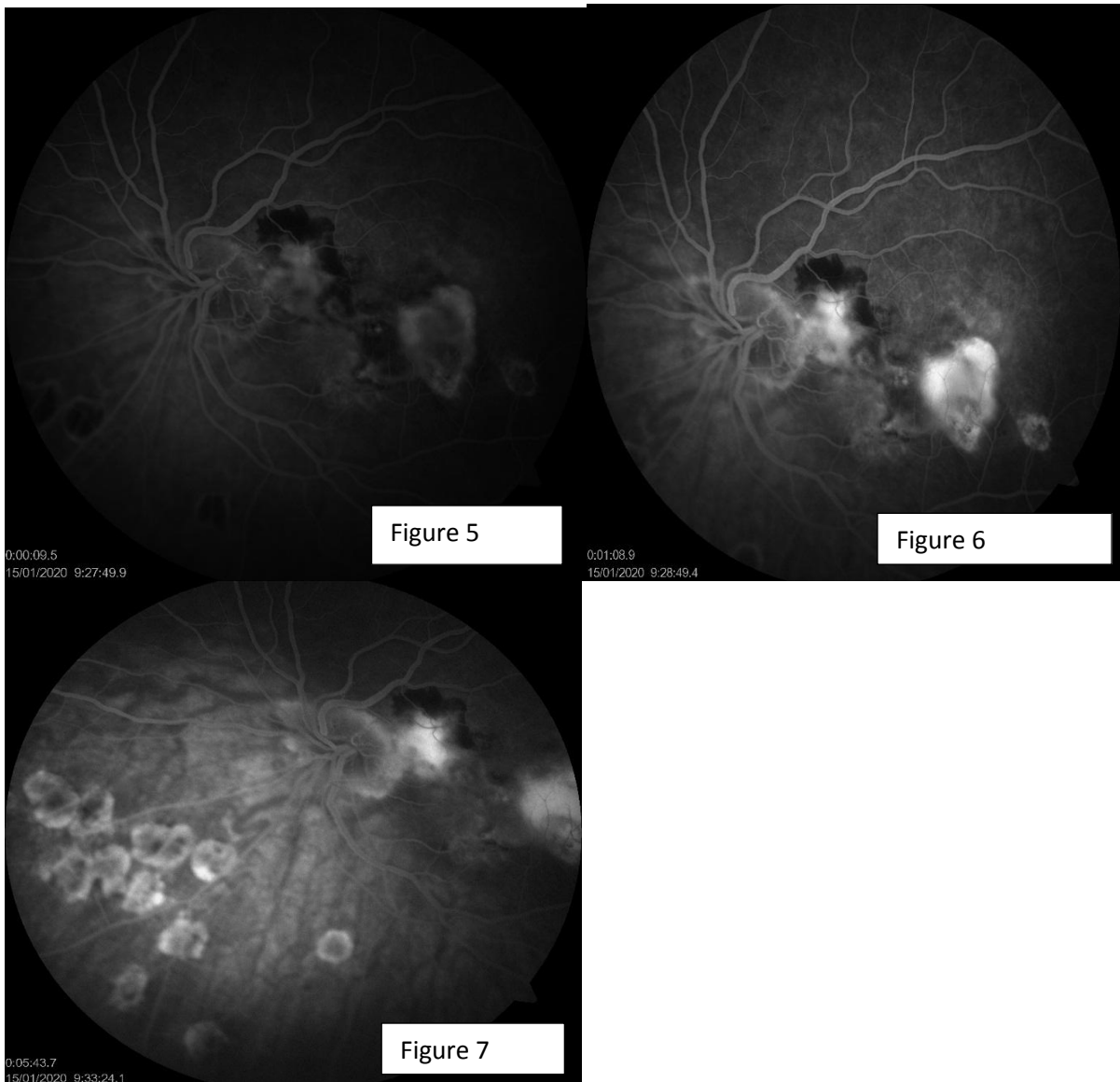


Figure 5, 6, 7: fluorescein angiography of the left eye; early (figure 5) and late phase (figure 6) showing the staining of the lesion; with window defect of the peripheral scars (figure7)

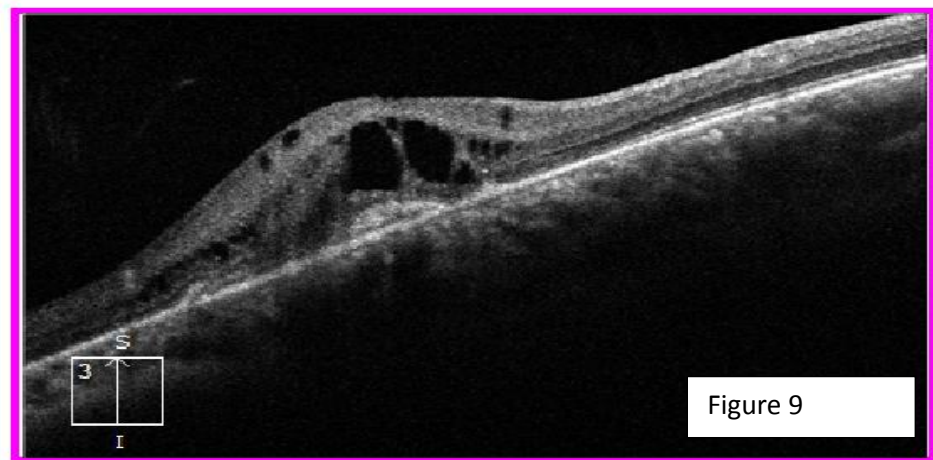
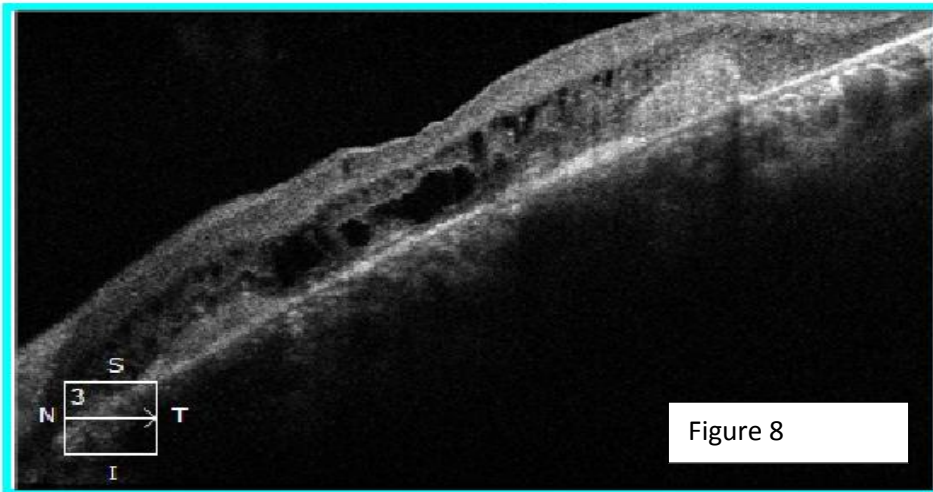


Figure 8, 9: spectral domain OCT of the macula of the left eye demonstrating the retinal thickening with depiction of the intraretinal cystic edema.

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