

## Anterior Herpetic Uveitis, About a Clinical Case

Danny Silva Cevallos<sup>1\*</sup>, Juan Carlos Salazar Flores<sup>2</sup>, Diana Salazar Flores<sup>3</sup>, Fernando Silva Michalón<sup>4</sup>, Jhuleydi Chunchu Romero<sup>5</sup> and Gabriela Flores Moscoso<sup>6</sup>

<sup>1</sup>Specialist in Internal Medicine, Clinica Guayaquil, University of Guayaquil, Ecuador

<sup>2</sup>General Practitioner, Internal Medicine, Service Clinic, Guayaquil/UESS, Ecuador

<sup>3</sup>General Practitioner, Ecuador

<sup>4</sup>General Practitioner, Catholic University, Ecuador

<sup>5</sup>General Practitioner, Clinical Hospitalization, Service Guayaquil, Ecuador

<sup>6</sup>General Practitioner, Emergency Service, Clinica Guayaquil, University of Guayaquil, Ecuador

**\*Corresponding Author:** Danny Silva Cevallos, Specialist in Internal Medicine, Clinica Guayaquil, University of Guayaquil, Ecuador.

**DOI:** 10.31080/ASOP.2022.05.0482

**Received:** February 19, 2022

**Published:** March 15, 2022

© All rights are reserved by **Danny Silva Cevallos., et al.**

### Abstract

Next, a report is made of a clinical case of a male patient who was admitted to our institution with a suspected diagnosis of a transient cerebrovascular event together with visual disorders that, upon detailed examination, revealed damage to the anterior chamber of the eye, giving as a diagnosis Uveitis being the same an ophthalmological pathology of meticulous treatment and delicate progression to blindness if it is not treated properly. Additionally, its etiology could be determined as a viral whose causative agent was Herpes Virus 1.

This case is presented as the objective of the appropriate determination of ophthalmological pathology, always seeking in this way more detail to the physical examination and the anamnesis around patients suffering from other pathologies and the aforementioned diagnosis goes unnoticed.

**Keywords:** Uveitis; Eye; Anterior Chamber; Blindness; Ophthalmologic

### Introduction

Uveitis is an inflammatory, intraocular disease, affecting both the uveal tract (iris, choroid and ciliary body), as well as adjacent structures: sclera, cornea, vitreous humor, retina and head of the optic nerve.

Additionally, it can be said that it corresponds to the inflammation of the middle layer of the eye, that is, the iris, the

ciliary body and the choroid. Currently this term is also used when it comes to an intraocular inflammation that affects the retina and its vessels.

Epidemiologically it is said that the incidence of uveitis is estimated at 52 cases per 100,000 inhabitants/year with a prevalence of approximately 0.1%. It has a maximum peak of incidence between 20-40 years. It is the third leading cause of blindness in working-age patients in developed countries.

The clinical picture can range from mild inflammation, only visible in detailed exploration, to a picture with moderate or severe inflammation characterized by pain, photophobia, eye redness, tearing and variable decrease in visual acuity; sometimes there is an elevation of intraocular pressure (IOP). In the ophthalmological examination, conjunctival and periquartic ciliary hyperemia, dysfunction of the pupillary reflex to the luminous changes and turbidity in the anterior chamber (Tyndall phenomenon) are observed; we speak of hypopyon when the inflammation is very intense and fibrin and inflammatory cells accumulate in the form of a whitish level in the lower part of the anterior chamber.

The diagnosis is initially clinical and the etiology is mostly idiopathic, there is no consensus on laboratory tests or images that must be performed for the initial diagnosis and management, as well as follow-up for these patients [1].

First of all, the clinical history and ophthalmological findings will be decisive to carry out an initial diagnostic approach, taking into account factors such as: sex, age, time of evolution and location of uveitis, as well as associated systemic symptoms [2].

In a biomolecular analytical study whose title is: "Identification of possible biomarkers in peripheral blood supernatants of South African patients with syphilitic and herpetic uveitis" it is pointed out as a means of searching for differential etiologies that the only marker of the host that showed a significant difference between syphilitic and herpetic uveitis was CRP. Analysis of the ROC curve identified that these three biomarkers and other candidates, including CXCL11/ITAC-1, LIGHT, and PCT, are statistically significant in their ability to diagnose syphilis [3].

Knowledge of ocular involvement in various systemic diseases will help the clinician both in the diagnostic, therapeutic and prognostic processes. Diseases where its appearance is usually associated are infectious origin: bacterial such as tuberculosis, leprosy and syphilis; fungal: candidiasis, cryptocococcus and histoplasmosis; parasitic: cysticercosis, toxocariasis, toxoplasmosis and onchocerciasis; and viral: herpes simplex, herpes zoster and cytomegalovirus. Masked syndromes such as leukemias, lymphomas, melanomas, retinoblastomas, metastatic and neoplastic syndromes; systemic diseases such as: Systemic Lupus Erythematosus, Vasculitis, etc.

Taking into consideration viral etiology, a anterior uveitis caused by herpes simplex virus (HSV), typically has an acute unilateral course, often appears in elderly patients, is accompanied by conjunctival redness and may show endothelins, medium to large keratic precipitates (KPs), may be accompanied by increased eye pressure [4].

Emphasizing the viral etiology, it is suspected when anterior uveitis is accompanied by ocular hypertension, diffuse stellate keratic precipitates or presence of iris atrophy [5].

The therapeutic approach in this type of patients must be based on a multidisciplinary team that allows an accurate and timely diagnosis, an adequate treatment, the evaluation of the prognosis of the disease and the effectiveness of the treatment instituted.

As for the genetic research recently, a study was carried out in China entitled: "Association of polymorphisms of the TLR2 gene with presumed anterior uveitis induced by viruses in Han Chinese men", whose results showed that the gender analysis shows that the risk is restricted to male patients to suffer from the pathology in question [6].

The determination of anterior uveitis is important since it goes unnoticed as an important cause of blindness in the patient and therefore requires a diagnosis and timely treatment. Additionally, the etiology of the pathology in question should focus on infectious etiological determination.

### Description of the clinical case

Male of 36 years, with pathological history of Arterial Hypertension in treatment with propranolol 40 mg and Hypothyroidism taking levothyroxine 125 mcg daily, presents clinical picture of 24 hours of evolution characterized by presenting tinnitus and holocranial headache of great intensity, with loss of level of consciousness and left hemiparesis, together with conjunctival hemorrhage and loss of vision of the left eye, with blurred vision of the right eye, plus eye pain of moderate intensity and photophobia. On physical examination vital stable, patient remains oriented, Glasgow 15/15, left pupil of 7-8 mm, areactive, right pupil isochoric.

The clinical situation of the patient was approached with suspicion of transient cerebrovascular event with evidence of conjunctival hemorrhage and ophthalmic symptomatology that was of concern in terms of the reference of blurred vision and risk in alteration of visual acuity.

The mentioned case was in the first instance evaluated by the neurosurgery service who requested the realization of ANGIOTAC 3D detailing the following findings: vessels of the Willis Polygon with anatomical disposition and normal flows, no aneurysmal formations are observed. the basilar vertebro system is normal.

Given the above, it was decided to evaluate the Ophthalmology service who, before the case analysis, determined to perform fundus and tonometry examinations, determining closed angle glaucoma in the left eye and anterior camera uveitis in the right eye.

The Internal Medicine service requests infectious tests to complete diagnostic suspicion of Ophthalmology and when collecting the relevant information the presence of positivity for IGM antibodies of HERPES VIRUS 1.

As for the evolution of the case, the patient’s visual acuity was improving, antivirals, analgesics and eye drops were administered to later issue hospital discharge and follow-up by Ophthalmology.

**Discussion and Conclusion**

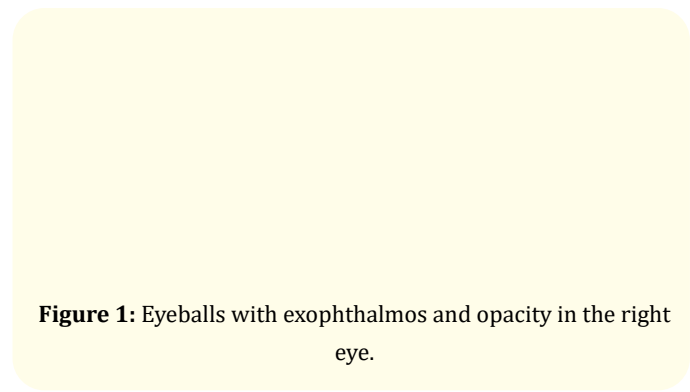
Infectious diseases together with those of autoimmune lineage are an important group of uveal pathology. Among the infectious diseases, viral diseases related to the group of Herpes I, II and Varicella-Zoster Viruses are very frequent. The importance of this lies in the fact that in many cases they have specific treatment and due to their ignorance regarding their management, it determines inadequate management.

The infection is usually a reactivation of the virus, which occurs most often in older people. It is proposed that anterior uveitis may be the result of vascular occlusions and ischemia (ischemic vasculitis) that coincides precisely with the semiological characteristics of the present case.

It should be additionally and with the exercise of differential diagnosis to rule out varied etiologies that do not apply to our patient such as those related to immune entities.

Topical corticosteroids concomitant with antivirals reduce the degree of inflammation and sequelae due to the reduction of inflammation with a shorter evolution. Corticosteroids, along with antivirals are indicated to treat deep forms (stromal and endothelial herpes simplex). They reduce the sequelae by reducing scarring, goniosinechia, cataracts and glaucomas. It should always be administered the lowest possible dose that achieves the non-appearance of signs of inflammation.

The sub diagnosis of this pathology is of marked importance, there being the erroneous therapeutic applied in patients who come to determine advanced glaucoma or even blindness.



**Figure 1:** Eyeballs with exophthalmos and opacity in the right eye.

Serological studies		
Herpes Virus 1	IGM Antibodies	172.2
Herpes Virus 2	IGG Antibodies	< 10

**Table 1:** Serological evidence of herpetic etiology for anterior uveitis.

**Bibliography**

1. Toro Arango O., *et al.* "Diagnosis and initial treatment of uveitis by non-ophthalmologists". *Nova* 15.28 (2017): 99.
2. León Céspedes C., *et al.* "Medical recommendations for non-infectious uveitis in adults". *Acta Médica Costarricense* 62.1 (2020): 26-37.
3. Andreae CD., *et al.* "Identification of Potential Biomarkers in Peripheral Blood Supernatants of South African Patients with Syphilitic and Herpetic Uveitis". *Ocular Immunology and Inflammation* 29.2 (2021): 299-307.

4. Wensing B., *et al.* "Clinical Characteristics of Herpes Simplex Virus Associated Anterior Uveitis". *Ocular Immunology and Inflammation* 26.3 (2018): 333-337.
5. Chan NSW and Chee SP. "Demystifying viral anterior uveitis: A review". *Clinical and Experimental Ophthalmology* 47.3 (2019): 320-333.
6. Liu Y., *et al.* "Association of TLR2 Gene Polymorphisms with Presumed Viral-Induced Anterior Uveitis in male Han Chinese". *Experimental Eye Research* 187 (2019): 1-6.

#### Assets from publication with us

- Prompt Acknowledgement after receiving the article
- Thorough Double blinded peer review
- Rapid Publication
- Issue of Publication Certificate
- High visibility of your Published work

**Website:** [www.actascientific.com/](http://www.actascientific.com/)

**Submit Article:** [www.actascientific.com/submission.php](http://www.actascientific.com/submission.php)

**Email us:** [editor@actascientific.com](mailto:editor@actascientific.com)

**Contact us:** +91 9182824667