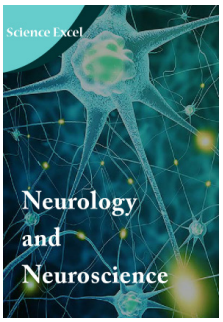
Neurology & Neuroscience

Case Report



Left Orbital Lymphangioma, Treated with QIAPI 1: Case Report

Arturo Solís Herrera, María del Carmen Arias Esparza, Paola Eugenia Solís Arias

Human Photosynthesis ™ Research Center. Aguascalientes 20000, México.

*Correspondence

Arturo Solís Herrera, MD, PhD

Human Photosynthesis ™ Research Center. Aguascalientes 20000, México.

- Received Date: 23 Jul 2025
- Accepted Date: 28 Jul 2025
- Publication Date: 30 Jul 2025

Keywords

Hydrogen, dissociation, Hemorrhage, Lymphangioma, Sclerotherapy, Treatment outcome.

Copyright

© 2025 Author. This is an open- access article distributed under the terms of the Creative Commons Attribution 4.0 International license.

Abstract

Orbital lymphangiomas present a difficult management problem for ophthalmologists. It was diagnosed based on clinical, radiologic (computed tomography, magnetic resonance imaging), and histologic findings when possible. Patients whose vision was not compromised by orbital lymphangioma, or that did not have increased intraocular pressure (IOP), usually is treated with oral corticosteroids. Orbital lymphangioma that affected vision or increased IOP was treated by surgery, which included aspiration of blood or partial resection with or without injection of a sclerosant. Patients with compromised vision underwent some form of surgery. Bleeding recurred frequently.

In this work, we describe a case of orbital lymphangioma treated with QIAPI 1 for almost 10 years.

Background

Lymphangioma is a benign tumor of the lymphatic system that is characterized by abnormal endothelial-lined channels [1]. Generally found in the head and neck region, these tumors constitute 0.3% to 4% of all orbital tumors and are not considered hamartomas because the orbit does not usually contain lymphatic vessels [2]. Some patients with orbital lymphangioma may develop proptosis, either slowly as the mass invades the orbit or suddenly during hemorrhage of a lesion [3]. In childhood, the diagnosis is often made when proptosis occurs after bleeding because of minor trauma or upper respiratory infection and may even occur spontaneously. The lymphangioma itself or the associated bleeding can restrict ocular motility and cause compressive optic neuropathy because of its mass [4].

Lymphangiomas can also infiltrate diffusely into surrounding vital structures such as the optic nerve. This characteristic, along with the associated hemorrhage, presents many surgical challenges and renders management of orbital lymphangiomas very difficult. Several methods have been used to treat orbital lymphangioma, including systemic corticosteroids, injection of a sclerosant, and surgical excision, but currently, there are no definitive curative treatments [5].

Usually, patients had limited ocular motility and frequently had compressive optic neuropathy before or during follow-up, on average 22 months.

Surgical resections are complicated, bleeding is frequent and recurrent, especially after surgery, as there is always abnormal residual tissue. The use of bleomycin has been described, drains that do not work, and recurrent bleeding is usually worse than before surgery. Catheters with continuous suction have been tried, but it is not easy for them to work well. Steroid administration is common, but not advisable for more than two weeks.

Significant vision loss is very common after surgical management of recurrent bleeding. Surgical resections of the lymphangioma are always partial. Residual tissue is probably the origin of recurrent, very severe hemorrhages, which lead to vision loss, marked edema, and alterations in ocular motility.

Diffuse infiltration and associated hemorrhage make this type of tumor difficult to remove surgically. Oral corticosteroid therapy alone was effective in fa reduced number of patients [6].

The use of Bleomycin, first isolated from Streptomyces verticillus in 1966 [7], has a sclerosing effect on vascular endothelial cells and has been used to treat pleural effusion and vascular anomalies [8]. But their use does not guarantee recurrent bleeding absence.

Some cases of orbital lymphangioma were fractionally irradiated with 20 Gy, [9], with the goal of reducing the size of the lesion. However, lymphangioma is not a rapidly proliferating lesion, so radiotherapy was ineffective for this purpose.

The unsuspected capacity of human cells to oxygenate themselves.

The prevailing dogma today dates to the late eighteenth century, in which Lavoisier proposed that our body took oxygen from the air around it, as happens in chimneys, introducing it into the body through the lungs,

Citation: Herrera AS, Esparza MCA, Arias PES. Left Orbital Lymphangioma, Treated with QIAPI 1: Case Report. Neurol Neurosci. 2025;6(6):027.

by mere simple diffusion, and then distributing it to all the cells of the body through the bloodstream.

But as the study of biochemistry continued, about 100 years later it was found that, in proportion, each cell in our body contains about 5 times more oxygen than the atmosphere, which gave rise to a heated debate about the origin of this oxygen [10]. Which continues to date. Circumstantially, we solved the problem, during an observational, analytical study, about the three main causes of blindness in the world and the possible correlations between the tiny blood vessels that enter and leave through the optic nerve (Figure 1)

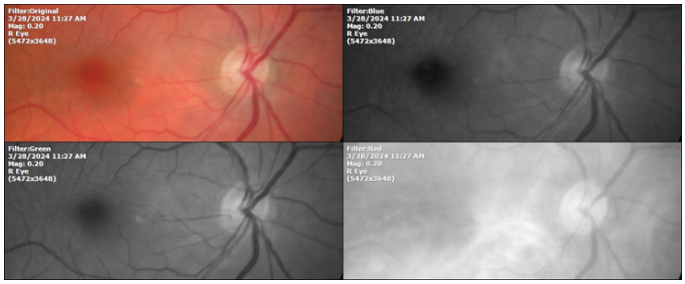
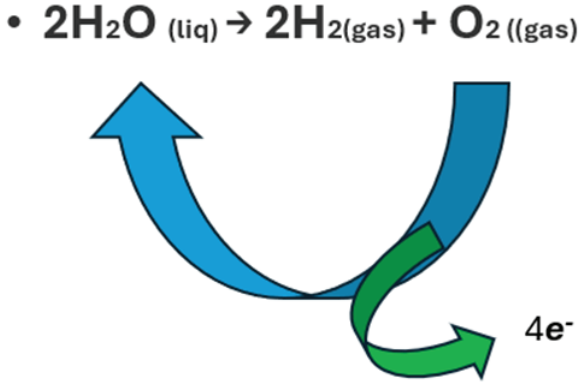


Figure 1. *The photograph shows the right optic nerve, the retinal vessels, the macular region, and in the background the choroid, visible with wavelengths of about 850 nm. Image below the right of the photograph. The choroid is the layer of tissue with the most melanin in the eyeball.*

The observational analytical study began in 1990 and ended in 2002 and included the ophthalmological records of six thousand patients. And during this study, we were able to identify a chemical reaction that happens inside human eukaryotic cells, and that was only known in plants: the dissociation of water molecules inside the cells [11].

The process that happens inside every one of the cells that make us up is described in the following diagram:



Liquid water dissociates into its gaseous components, remember that water is the only known example in which the union of two gases forms a liquid compound. The dissociation reaction of water molecules is a highly endergonic process, in the laboratory it is required to heat water to two thousand degrees Celsius, but in plants and us it happens at room temperature.

The dissociation of water occurs mainly in the perinuclear space, which causes a zone of negative pressure in that region of the cell, which results in a suction force that binds the liquids of the immediate environment; which explains the attraction of water from the interstitial fluid to the interior of the cell, which rules out theoretical mechanisms that were implemented trying to explain what made the water or liquids go inside the cell, such as the sodium/potassium pump.

The dissociation of water molecules occurs strictly within melanosomes, located mainly in the perinuclear space. The reformation of water molecules occurs indistinctly inside the melanosomes and outside them as well, since it is a highly exergonic reaction.

It can be thought that this unsuspected reaction in human eukaryotic cells is the beginning of cellular functioning, that is: of cell biology as a whole, and that when this very first reaction is unbalanced or damaged by environmental factors such as increasing pollution of water, air, and food; then the consequent reactions of the very complex biochemical logic of the cell are altered in an unpredictable way, resulting in diseases such as orbital lymphangioma.

The reaction of dissociation and reforming of water is an exact process, amazingly exact, and one that has not changed since the beginning of time, since it is a fundamental part of the origin and further evolution of life, and while this process of dissociation and reforming of water that occurs inside all our cells, If it is in balance with the metabolic requirements of oxygen (and hydrogen) of the cells, they will work well because they are very well made, thanks to billions of years of evolution.

Therefore, it is necessary that the delicate balance of oxygen (and hydrogen) at the intracellular level is altered for diseases to originate. Whichever it is.

So, theoretically, if we restore the oxygen (and hydrogen) balance at the intracellular level, through the administration of QIAPI 1™, a drug developed in our study center, the signs and symptoms of the disease would improve significantly, which happened in the case we describe below.

Case report

This is a female patient, one year and two months old, with no perinatal history of importance for the current condition, who presented from birth, proptosis of the left eye, finding compatible with left-sided orbital lymphangioma (Figure 2).

Figure 2. *Clinical photograph of the patient, at approximately 12 months of age.*

Given that for us any illness, sign, or symptom begins with an imbalance in oxygen generation at the intracellular level, the family was advised to administer QIAPI 1® sublingually at a dose of three drops, 4 to 6 times a day, and to apply it topically three or four times a day. Once the parents agreed and the informed consent form was signed, the treatment regimen was initiated.

The treatment was maintained for almost 10 years, during which the evolution was satisfactory, because although some episodes of ecchymosis after intense exercise were relatively benign. (Figures 3-5)

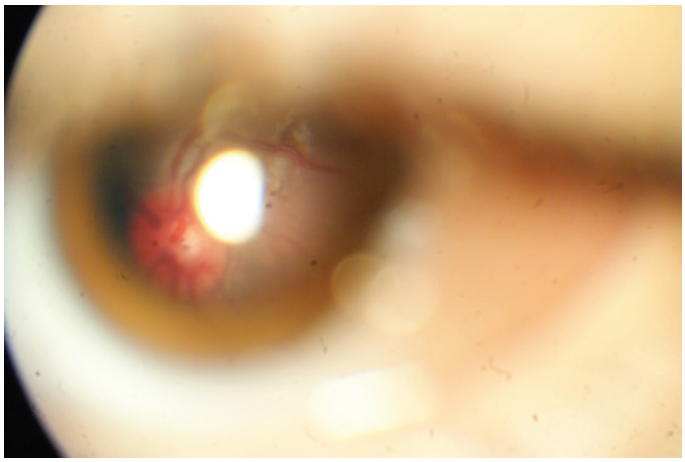


Figure 3. *The photograph of the ocular fundus on the left side was only possible until she was 7 years old, and despite the patient's little cooperation, we can see an optical disc of normal characteristics.*

Figure 4. *The patient had some episodes of palpebral edema, conjunctival edema, and ecchymosis, but with conservative treatment she recovered completely, without anatomical or functional sequelae.*

Episodes of orbital oedema, of sudden onset, and always with a history of intense physical exertion such as somewhat abrupt games, typical of age. Conservative treatment with QIAPI 1® caused her to recover, without anatomical or functional sequelae, both local (orbital or ocular), nor systemic.

The congenital anatomical alterations that occur in orbital lymphangioma are complex and different in each patient, consisting of localized vascular and lymphatic malformations, which most commonly occur in the head and neck region. [12]

Figure 5. *Photograph of one of the episodes of palpebral and conjunctival edema, as well as ecchymosis in the periphery of the eyeball, which did not cause lesions inside the eye itself.*

Figure 6. *Recovery of edema in both the orbit and the conjunctiva, and the ecchymosis in the periphery, located at the bottom of the inferior conjunctival sac, recovered significantly after a few days.*

Orbital lymphangiomas typically present in the first decade of life with signs of ptosis, proptosis, restriction of ocular motility, compressive optic neuropathy, and disfigurement. Due to proximity to vital structures, such as the globe, optic nerve, extraocular muscles, and sometimes structures immediate to the CNS; thereby, treatment for these lesions is highly complicated and includes a large array of approaches including observation, sclerotherapy, systemic therapy, and risky surgical excision, even if it is partial resection.

The exact nature of lymphangiomas of the orbit is controversial. These tumors are diffuse, slowly progressive, difficult to remove, and relatively insensitive to irradiation. They frequently hemorrhage, causing rapid increase in proptosis, which may require emergency surgery, and they fluctuate in size with upper respiratory tract infections. Optic disc edema and amblyopia secondary to astigmatism are occasionally noted. [13]

Figure 7. *The evolution after the sudden episodes of the edema of the conjunctiva and orbit had a benign evolution with conservative treatment, and after one or two weeks she recovered quite well.*

Figure 8. *During one of the 2 or 3 episodes of edema that the patient had during the almost 10 years that she was in treatment with us, it is observed that the edema is mild, as well as very discreet hyperemia of the palpebral edges. Although there is a certain downward displacement of the eyeball, the patient did not have problems with diplopia, and her vision was 20/20.*

The precise anatomical characteristics of orbital lymphangiomas are very difficult to determine, since their location can be intraconal, extraconal, or diffuse. For extraconal cases, a further classification was made as intraorbital, extra orbital, or mixed [14]. Recurrencies are frequent, and repeated surgeries tend to seriously affect vision, or produce severe sequelae when neighboring structures of the central nervous system are affected.

The patient continued with the treatment of sublingual QIAPI 1® 4 to 6 times a day, and during the brief episodes of edema, it increased every hour. The following figures were the last time she went to consult with us.

Soon after, the patient stopped attending her biannual check-ups, and later we learned that a neurosurgeon had operated on her, with disastrous consequences.

Figure 9. *In the side photograph, the degree of proptosis is mild, despite the episode of post-exercise edema and ecchymosis.*

Figure 10. *Photograph in which the patient, after a time of rough, intense games, typical of age, presented some edema and ecchymosis, without visual, functional, local or systemic alterations.*

Comment

TThe orbits are bony structures of the skull that house the globe, extraocular muscles, nerves, blood vessels, lacrimal apparatus, and adipose tissue. Each orbit protects the globe, while the supportive tissues allow the globe to move in three dimensions (horizontal, vertical, and torsional) [15]. The anatomy of orbit is a complex topic vital for understanding the communication between the eye and the central nervous system and the potential for the spread of malignancy or infection. Certain surgical emergencies, such as severe fractures, are often intricate because of the delicate anatomy of the orbit and its contents. [16]

Orbital development begins in the third week of embryonic life. The optic pits appear first as an invagination of the diencephalon; therefore, vascular and lymphatic malformations of the orbit have ramifications or connections with CNS structures derived from it (diencephalon). [17]

And to make the surgical approach more difficult, these veins (normal and abnormal) communicate with the facial veins anteriorly and the cavernous sinus posteriorly. Their exact course is variable. The venous system of the orbit is also highly variable, as a dense anastomotic network is typically present. There is no single venue correlated to the ophthalmic artery. Instead, there is a superior ophthalmic vein and a variable inferior ophthalmic vein. The two ophthalmic veins may drain to the cavernous sinus independently or join first before entering the cavernous sinus.

Conclusion

The unsuspected ability of human cells to oxygenate themselves, through the dissociation of water, such as plants, opens a new panorama in the field of treatment of complex illnesses such as lymphangioma diseases, allowing us to offer patients conservatives but effective treatments, and with little or no risks.

Acknowledgement

This work was made possible thanks to the unrestricted support of the Center for the Study of Human™ Photosynthesis, Aguascalientes 20000, Mexico.

Conflict of interest

The discovery of water dissociation in humans and the development of drugs was carried out in our study center.

References

1. Guinto G, Guinto-Nishimura Y. Orbital lymphangiomas. World Neurosurg. 2014;81:708-709.
2. Russin JJ, Rangel-Castilla L, Kalani MY, Spetzler RF. Surgical management, outcomes, and recurrence rate of orbital lymphangiomas. J Clin Neurosci. 2015;22:877-882.
3. Rootman J, Hay E, Graeb D, Miller R. Orbital-adnexal lymphangiomas: a spectrum of hemodynamically isolated vascular hamartomas. Ophthalmology. 1986;93:1558-1570.
4. Lee KH, Han SH, Yoon JS. Successful treatment of orbital lymphangioma with intralesional bleomycin and application of continuous negative pressure. Korean J Ophthalmol. 2015;29:70-72.
5. Saha K, Leatherbarrow B. Orbital lymphangiomas: a review of management strategies. Curr Opin Ophthalmol. 2012;23:433-438.
6. Harris GJ, Sakol PJ, Bonavolonta G, De Conciliis C. An analysis of thirty cases of orbital lymphangioma: pathophysiologic considerations and management recommendations. Ophthalmology. 1990;97:1583-1592.
7. Saitta P, Krishnamurthy K, Brown LH. Bleomycin in dermatology: a review of intralesional applications. Dermatol Surg. 2008;34:1299-1313.
8. Muir T, Kirsten M, Fourie P, et al. Intralesional bleomycin injection (IBI) treatment for haemangiomas and congenital vascular malformations. Pediatr Surg Int. 2004;19:766-773.
9. Portnow LH, Scott M, Morris CG, et al. Fractionated radiotherapy in the management of benign vascular tumors. Am J Clin Oncol. 2012;35:557-561.
10. Gjedde A. Diffusive insights: on the disagreement of Christian Bohr and August Krogh at the Centennial of the Seven Little Devils. Adv Physiol Educ. 2010;34(4):174-185. doi:10.1152/advan.00092.2010.
11. Herrera AS, Arias Esparza M. The unsuspected ability of the human cell to oxygenate itself. Applications in cell biology. Med Res Arch. 2025;13(3). https://doi.org/10.18103/mra.v13i3.6344
12. Patel SR, Rosenberg JB, Barmettler A. Interventions for orbital lymphangioma. Cochrane Database Syst Rev. 2019;5(5):CD013000. doi:10.1002/14651858.CD013000.pub2.
13. Iliff WJ, Green WR. Orbital lymphangiomas. Ophthalmology. 1979;86(5):914-929. doi:10.1016/s0161-6420(79)35441-0.
14. Gündüz K, Demirel S, Yagmurlu B, Erden E. Correlation of surgical outcome with neuroimaging findings in periocular lymphangiomas. Ophthalmology. 2006;113(7):1231.e1-1231.e8. doi:10.1016/j.ophtha.2006.02.057.
15. Gospe SM, Bhatti MT. Orbital anatomy. Int Ophthalmol Clin. 2018;58(2):5-23.
16. Turvey TA, Golden BA. Orbital anatomy for the surgeon. Oral Maxillofac Surg Clin North Am. 2012;24(4):525-536.
17. Sinn R, Wittbrodt J. An eye on eye development. Mech Dev. 2013;130(6-8):347-358.