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Case Report

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Pharmacological Modulation of the Unexpected Capacity of Human Being to take Oxygen from Water in Rejected Second Corneal Transplantation

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Abstract

The most widely practiced type of transplantation in humans is penetrating keratoplasty. Irreversible immune rejection of the transplanted cornea is the major cause of human allograft failure in the intermediate and late postoperative period. This immunological process causes reversible or irreversible damage to the grafted cornea in several cases despite the use of intensive immunosuppressive therapy. Management of corneal graft rejection consists of early detection and aggressive therapy with corticosteroids. Corticosteroid therapy, both topical and systemic, is the mainstay of management. Addition of immunosuppressive to the treatment regimen helps in quick and long-term recovery. Corneal graft failure after graft rejection remains an important cause of blindness and hence the need for developing new strategies for suppressing graft rejection is colossal.

Keywords: Keratoplasty, Immune Rejection, Graft Decompensation, Oxygen, Water.

Introduction

Corneal graft rejection comprises a sequence of complex immune responses that involves the recognition of the foreign histocompatibility antigens of the corneal graft by the host's immune system, leading to the initiation of the immune response cascade. An efferent immune response is mounted by the host immune system against these foreign antigens culminating in rejection and graft decompensation in irreversible cases [1]. Epithelial rejection, chronic stromal rejection, hyperacute rejection, and endothelial rejection constitute the several different types of corneal graft rejection that might occur in isolation or in conjunction.

Knowledge of the immunopathogenesis of graft rejection may allow a better understanding of the immunological process thus helping in its prevention, early detection, and management. Antihuman interferon-gamma Fabs derived from goat antihuman interferon-gamma antibodies were used topically in patients with corneal transplant rejection after penetrating keratoplasty. It may be safe and effective in halting corneal transplant rejection after penetrating keratoplasty [2].

Corneal transplantation remains one of the most successful organ transplantation procedures in humans. The unique structure of the cornea, with its absence of blood vessels and corneal lymphatic, allows the survival of corneal allograft. He mainstay of therapy is topical corticosteroids. In severe cases, periocular, intravenous, and oral corticosteroids therapy can be rendered. New therapeutic modalities such as cyclosporine, tacrolimus, daclizumab, mycophenolate mofetil, leflunomide, rapamycin, and others may prove to be of help in the prevention and treatment of corneal graft rejection [3].

The corneal bed and the anterior chamber are immune-privileged sites, but despite the relative immune privilege of the cornea as a transplanted tissue, the most common cause of corneal graft failure in all reports is allogeneic rejection. As human endothelial cells do not repair by mitosis, the consequence is that donor corneal transparency is lost if cell density falls below the threshold necessary for the prevention of stromal swelling [4].

Although the first successful penetrating corneal graft was reported in 1906, it took another half a century before the first description of the opacification of a previously clear corneal graft was published. Paufique named this event "maladie du greffon" (disease of the graft) and suggested that sensitization of the donor by the recipient is the cause.

Compared with PKP, deep anterior lamellar keratoplasty, Descemet stripping automated endothelial keratoplasty, and Descemet membrane endothelial keratoplasty have lower immune rejection. Whether immune rejection is a major risk factor for graft failure in these lamellar keratoplasties is unclear. While there have not been major advances in the systemic management of graft rejection,

topical nonsteroid agents such as tacrolimus and anti-vascular endothelial growth factor have shown promise in high-risk cases [5].

The unsuspected capacity of human body to take energy from intracellular water.

In the past XVII century, it began to be glimpsed that oxygen constituted a very small proportion of the atmosphere, and in comparison, the amount of oxygen that the human body contains inside is almost 5 times more. The proportion of oxygen in the tissues of our body is constant, amazingly constant, and the normal variations in a healthy patient range from 90 to 99% (SpO2%) [6]. The above, despite significant variations in the partial pressure of oxygen in the atmosphere.

No living being takes oxygen from the atmosphere but obtains it from the water it contains inside. If we measure the oxygen in the air of an empty auditorium, we will obtain measurements between 19 and 21%. So, when the auditorium has 100 people, the percentage of oxygen should decrease in that proportion and give us readings of 0.2% since the 100 people present would be consuming that oxygen. However, even with the passage of minutes or hours, the proportion of oxygen in the auditorium atmosphere will remain between 19 and 21%. The explanation for this observation can be: 1) The human body does not take oxygen from the air around it, and 2) The oxygen found in the atmosphere is constantly produced and therefore the proportion is maintained.

Option two is difficult to sustain, so we are left with the first option. Especially for our discovery about the unsuspected ability of the human body to extract the oxygen it needs, from the water it contains inside, inside each cell.

Briefly: During an observational, descriptive study, about the possible correlation between the blood vessels that enter and leave the eye, through the optic nerve and its possible correlation with the three main causes of blindness, some details observed at the edge of the human optic nerve caught our attention powerfully so we included them as variables in the study, and twelve years later (1990-2002) and six thousand patients later, we understood that our body takes oxygen from water, just as plants do, because they do not take oxygen from the atmosphere either, but from the water they contain [7].

Our body has several molecules that can extract oxygen from water, dissociating it, as it happens in plants. Being the most efficient of all melanin because it is the only one that tolerates the toxicity of oxygen and preserves it inside, so it dissociates and reassociates the water molecule. The other molecules cannot reform the water molecule because they expel oxygen quickly (due to its toxicity) like chlorophyll, so they irreversibly dissociate the water molecule [8].

The unreversible reaction that occurs in chlorophyll can be written as follows:

$$2H_2O_{(liq)} \rightarrow 2H_{2(gas)} + O_{2(gas)}$$

And the reaction that occurs inside the melanin is as follows:

$$2H_2O_{(liq)} \rightarrow 2H_{2(gas)} + O_{2(gas)} \rightarrow 2H_2O_{(liq)} + 4_e^-$$

The initial dissociation reaction, in both cases, is strongly endergonic, therefore, it requires a lot of energy, which is taken from sunlight. The reassociation reaction, in the case of melanin, is exergonic, this is requiring little energy, and can almost occur spontaneously. Inside melanin, for every two molecules of water that are reformed, 4 high energy electrons are generated.

The dissociation of water is the very first reaction of life, because it provides the oxygen and energy (transported by hydrogen) that the cell needs to drive each one of the reactions that make up the biochemical logic of life. It's an astonishingly accurate process that hasn't changed since the beginning of time. But this accuracy in terms of periodicity, constancy, and balance, is disturbed in the presence of contaminated water, polluted air, pesticides, herbicides, fertilizers, metals, plastics, solvents, industrial waste, additives of soft drinks and fast food, alcohol, extreme temperatures (both heat and cold), trauma, anesthetic agents, etc [9].

And when the very first reaction of life is in imbalance, simply the rest of the organism begins to disorganize, and that is when diseases appear. We dare to say that any disease begins with the imbalance of water dissociation. The name of the disease has no significance because the human body ignores it. And each person is unbalanced in their own way, so it is unpredictable what will happen when the first reaction of life is unbalanced.

To date, after 20 years of treating patients under the perspective of our discovery, we are increasingly convinced that the underlying problem in any disease begins because our body, our tissues, or our cells, for one reason or another, are not extracting oxygen from water the way it's needed.

So, as a first step, we restore the balance of the process of dissociation from water, the very first reaction of life, and the usual response of the body is impressive.

The cornea is no exception, the cells and molecules that make it up also depend on the dissociation of water as a first step in the biochemical sequence of life. So, a diseased cornea, which loses function and shape, is simply out of balance, no matter the name of the condition. And of the transplanted tissue, we can say the same thing, when a graft becomes inflamed, it becomes opaque, but it is because it is in imbalance. Nothing else. And what we have observed, is that a body in balance, protects the transplant, whether cornea, kidney, liver, etc.

Below we present a case of rejection of second corneal transplant treated by restoring the balance of water dissociation, the very first reaction of life.

Case report

Female patient, born November 1941. With a history of rheumatoid arthritis treated with methotrexate, but on the third day fell into a coma. Developing diabetes mellitus since 2005. OI evicted, OD operated on cataract, in 2005, with poor vision recovery.

He had renal tubular acidosis, treated with leflunomide, but the transplant became opaque. Currently being treated with timolol maleate, brimonidine, topical prednisone, and lubricants. Use 15 of insulin glargine each 24 hours.

The following photographs were taken on the day of the first consultation

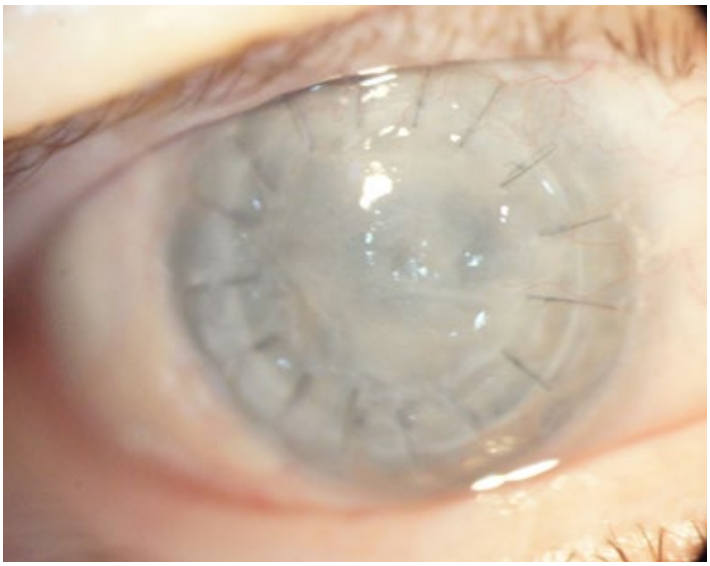

Figure 1: Photograph taken on March 3, 2017. The graft is opaque and ulcerating. Some vessels are observed in the 3 o'clock meridian.

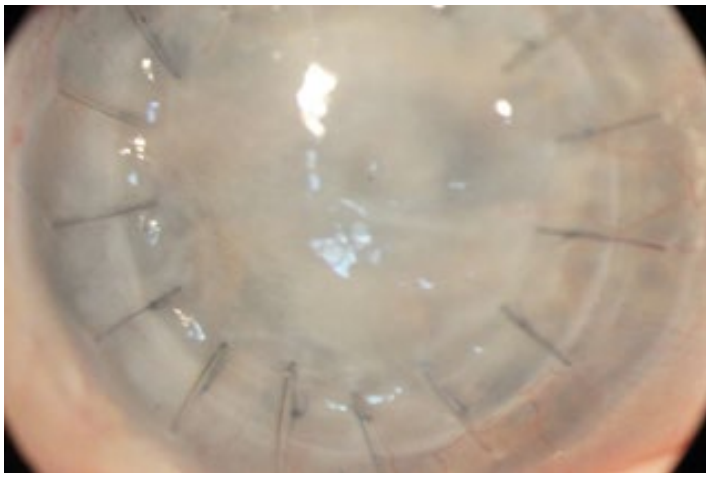

Figure 2: Close-up of the photograph of March 3, 2017.

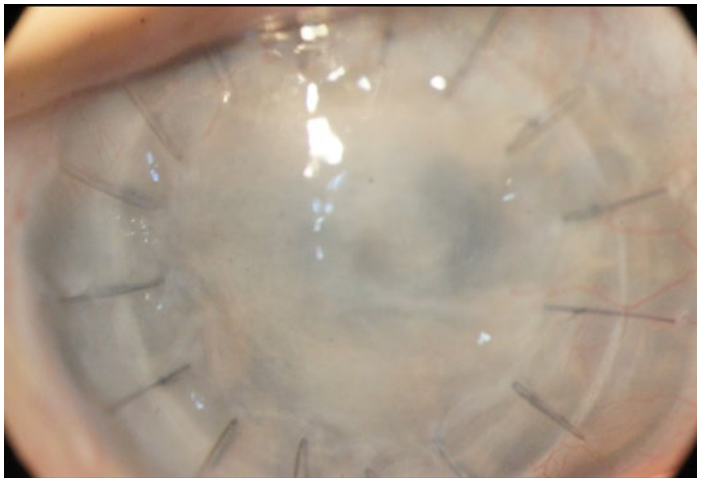

Figure 3: Six weeks later, the corneal epithelium in better condition, the opacity has improved, the vessels have not grown.

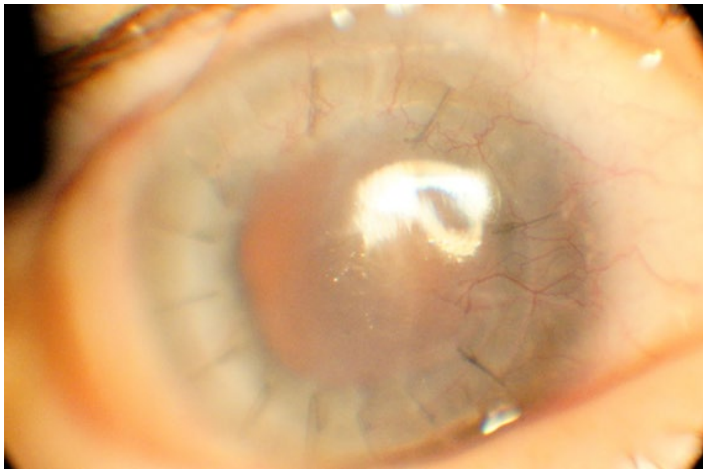

Figure 4: In July 2017, graft transparency has improved significantly, the corneal epithelium in good condition, and the blood vessels do not show growth data.

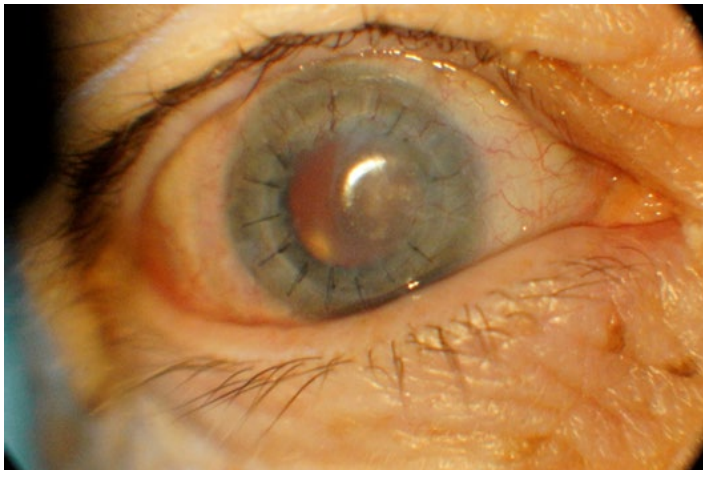

Figure 5: In september 2017, corneal transparency unremarkable, except by small calcifications in the area of the blood vessels. The surface of corneal epithelium has a very good appearance.

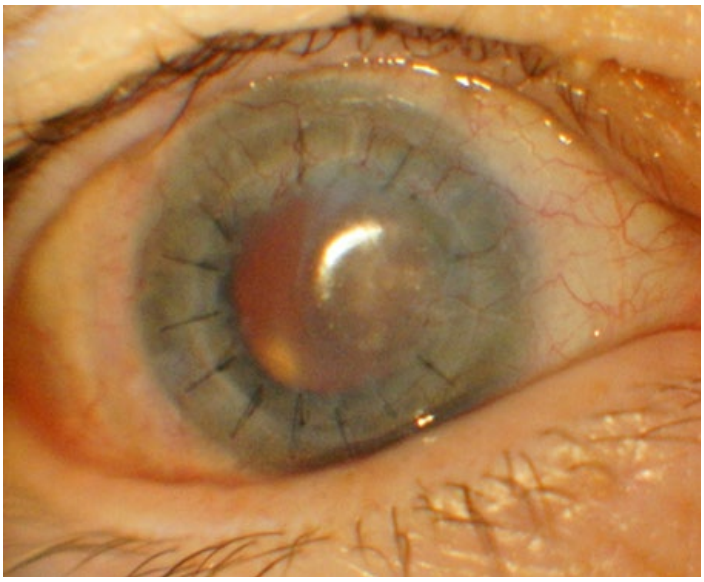

Figure 6: The magnification of Figure 5 allows us to observe an almost normal corneal reflex.

All medications used by the patient, both topical and systemic, were discontinued, except for insulin, but the dose was reduced to 7 IU, each 24 hours. QIAPI 1TM three drops of sublingual applications was used since the first day, all the time the patient is awake.

Comment

The interest in our work of both patients, doctors, as well as researchers, has been growing every day. Cases such as the one we report here have been convincing clinicians and researchers of the benefits of modulating the very first reaction of life, that is: the dissociation of the water molecule, which has been known in plants for almost 300 years, but the textbooks of primary, secondary, bachelorette, professional and postgraduate mentioned it, although they did not name its possibility in other living entities, although they did not deny it either.

Our observations that if not all, almost all diseases begin when the astonishing accuracy of the dissociation and re-formation of water is lost, has been gaining ground. When the very first reaction of life becomes unbalanced, the body begins to disorganize, and that's it.

The name of the disease does not seem to have the least importance, because our body does not pay attention to it. We might think that an organism in balance knows them all. A process of dissociation and reforming of water, which has been affected by contaminated water, polluted air, pesticides, herbicides, fertilizers, metals, plastics, industrial waste, solvents, soft drink additives, alcohol, extreme heat or cold, etc., loses its properties and the body tends to disorder.

Drugs such as QIAPI 1(TM), which restore the accuracy of the process of both dissociation and re-formation of the water molecule, will be increasingly used in various diseases, both acute and chronic, because the precise balance of the first reaction of life, helps the body to reorganize itself, to restore itself, to self-repaired from many and varied conditions that are observed in the sick every day. Apparently, a new era in medicine is beginning.

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