

# From Reversible Blindness to Irreversible Blindness: African Traditional Medicine and Treatment of Cataract, a Case Report

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## Abstract

The treatment of cataract, exclusively surgical, presents a number of challenges for low-income countries. We present a 47 year old patient suffering from cataract on the right eye and who was treated by an African healer. The operation of the traditional healer resulted in a posterior dislocation of the lens into the vitreous with an intravitreal hemorrhage, hyphemia, ocular high pressure and a hematic infiltration of the cornea when submitted to ophthalmological examination. The patient had no light perception in the right eye. We portray in this case the operation of the traditional healer including the prohibitions that go along with the treatment as well as the clinical and functional consequences. Then we discuss the consequences of practicing African traditional medicine, knowing the poorer access to cataract surgery and the low educational level of the majority of patients in our circumstances.

**Keywords:** Cataract; treatment; traditional healer; low incomes.

## 1. Introduction

A cataract is a total or partial clouding of the lens of the eye which generally leads to a progressive loss of visual acuity [1]. It is the main cause of blindness and loss of vision in low-income countries, particularly in Africa Sub-Saharan countries [2].

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Moreover, the high frequency of cataract and barriers to accessing eye care, eye surgery in particular, leads to a buildup of new cases or backlog, making cataract a real public health issue [3]. Yet, over the past five decades, its treatment, absolutely surgical has improved in a significant way. Since the development of the phacoemulsification technique by Kelman in 1967 to the use femtosecond laser in order to improve the accuracy and safety of cataract surgery [1, 4], cataract is no longer a public health issue in developed countries: it is the main cause of reversible blindness in these countries.

In our low-income countries, in addition to the burden that the cataract itself represents, some ancestral techniques intended to reduce this burden may turn out to be more disastrous by transforming a reversible blindness into irreversible blindness.

We are reporting the case of a patient with a functional loss of the eye as a consequence of complications occurring during his treatment by a traditional healer. The purpose of this work is to remind the risk of blindness related to the use of traditional and ancestral techniques which are out-of-date in other places and times in the management of visual pathologies.

## **2. Observation**

It was a 47 years old trader living in Bouaké that we examined on February 3, 2016. For three weeks, he had been suffering from an eye pain with redness combined with visual loss of the right eye after receiving treatment from a traditional healer. According to the patient, the disease started about a year ago by a progressive loss of vision of both eyes but more importantly of the right eye, with no pain and other related symptoms. Before this symptomatology, a traditional healer would have examined the patient. After an examination by inspection with a flashlight, that healer said to have diagnosed a cataract and decided for a ‘surgery’ and guaranteeing instant healing. Unsure of what to do, the patient accepted on the advice of a neighbor. The surgery took place in a gloomy room while the patient was sitting on an armchair and his head in a slightly inclined posture. The traditional healer, standing in front of him, after having performed incantations, grabbed his head with both hands by coercing both thumbs on the right eye. The patient felt a strong pressure with a sharp pain on the eye followed by a feeling of red veil. The healer then reassured him by giving him as treatment, a bottle containing an unidentified substance known as a traditional medicine that to be dropped 3 times a day in the ‘operated’ eye. Moreover, he recommended him not to put his head down and watch a light source or sleep during the day for 7 days. In addition, he should not resort to modern medicine under any circumstances; otherwise it would destroy the usefulness of the treatment.

The patient had elementary education, with no particular medical records, such as sickle-cell anemia, no hypertension, no diabetes. He had never used corrective lenses and had no history of trauma or eye disease.

The checkup revealed:

### ***2.1 On the right eye***

**Visual acuity:** no light perception.

**On the slit lamp:** A moderate conjunctival redness.

A light diffuse corneal edema combined with a hematic infiltration of the cornea;

stage I Hyphema;

A slight haematic Tyndall of the aqueous humor;

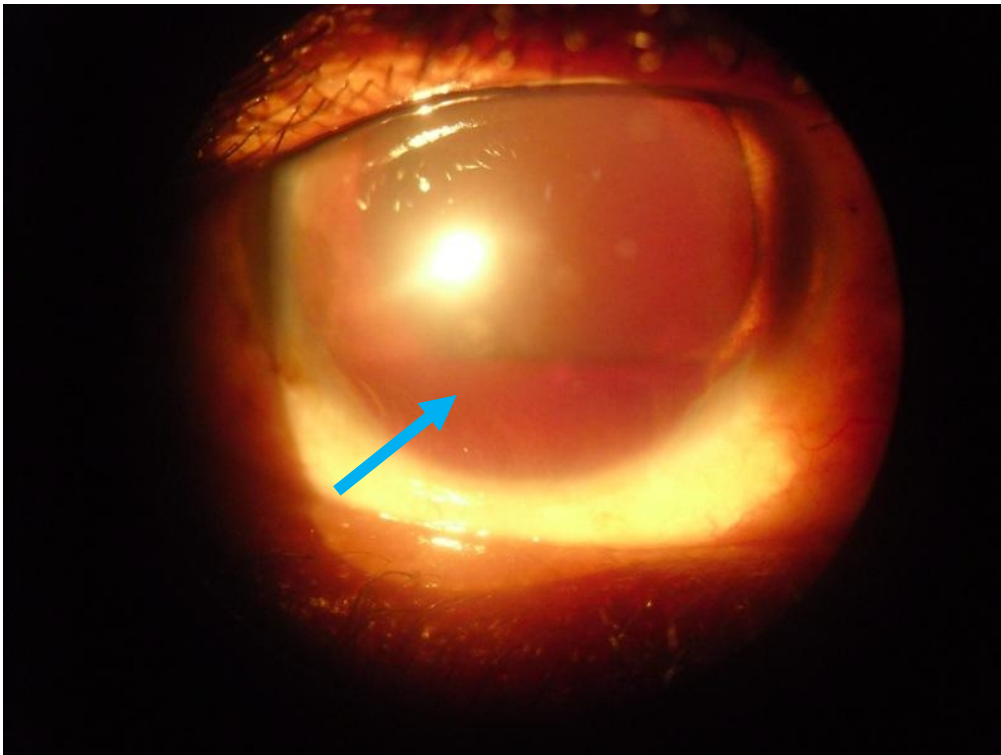
A mydriasis combined with a loss of light reflex;

A lack of lens in anatomical position;

A haematic Tyndall of the front vitreous

The intraocular pressure: 38 mm Hg

The eye fundus wasnot accessible.



**Figure 1:** diffuse corneal edema with hematic infiltration of the cornea, stage 1 of a hyphema (blue arrow) and mydriasis after the dislocation of the lens by means of pressure during a treatment of cataract by a traditional healer.

## 2.2 On the left eye

Visual acuity: 5/10 from afar and unfit for improvement from the pinhole. Near vision matched the Parinaud 3

(P3).

On the slit lamp: A cortical cataract and under a posterior sub capsular cataract formation.

The intraocular pressure: 14 mm Hg

The eye fundus: normal

### **2.3 Of both eyes**

No further abnormalities of the annexes (except the moderate redness of the right eye). The extrinsic eye movements were normal.

### **2.4 Additional tests**

The hemoglobin electrophoresis showed a  $A_1A_2$  hemoglobin (normal). The complete blood count combined with the sedimentation rate (CBC-SR), the hemostasis and fasting glucose measurements revealed no defect. Eye B-mode ultrasound showed a vitreous hyper echogenic compatible with intravitreal hemorrhage.

The checkup found an intravitreal hemorrhage with hyphemia, ocular high pressure corneal edema and a hematic infiltration of the cornea (fig 1) as a result of a cataract treatment by a traditional healer. We explained to the patient that the high intraocular pressure as a consequence of the work of traditional healer had caused damage and an ischemia of the optic nerve head. As a result he permanently lost vision in one eye and the main purpose of our treatment was to relieve his pain with no hope of visual recovery.

The patient has been entitled to rest, have a fluid cure and an analgesic and hypotonizing eye therapy on an out-patient basis. The prescription included: acetazolamide 250 milligrams to be taken 1 tablet 3 times per day along with potassium supplements, 2% of carteolol to be taken one drop twice a day, tablets of paracetamol 500 mg to be taken if needed without exceeding 6 tablets per day and 1 drop of pilocarpine every hour. A follow-up examination was set within 48 hours but the patient missed his appointment and was lost from sight.

## **3. Discussion**

The treatment of cataract, exclusively surgical, has progressed in developed countries. These progresses have improved the diagnosis to the extent that a disease which continues to exact a heavy toll on low-income countries is no longer a public health issue. Cataract remains a public health issue in Africa and in low-income countries in general because of its prevalence, its early occurrence as it was the case of this patient and, the poorer access to eye surgery [5, 6]. However, operated cases have been found successful [7, 8]. The overall prognosis of cataract treatment can be improved with the improvement of human resources through the training of the numbers of qualified health workers required and the provision of required facilities. For the time being, this does not seem to be the case. Besides the ratio between the high demand and low healthcare supply encourages the use of traditional methods of care, such as lowering the lens during the treatment of cataract.

This phenomenon reported by Ouattara et al is well-known in Côte d'Ivoire and in some countries of West Africa. It has long been promoted by advertising traditional healers in the newspapers, and commercials in community radio stations [9, 10]. This would be the result of a wrong approach in enhancing traditional knowledge in the medical field. This poses the problem of coexistence between African traditional medicine and modern medicine which is used in our hospitals.

We are reporting about a young patient, carrying a pre-senile growing asymmetric cataract in both of his eyes. His low level of education and probably the promise of immediate healing encouraged him to choose a different solution other than modern medicine. It is always difficult for patients to describe the methods of traditional healers because of their staging [9]. But in this case, we believe that the operation was to cause a posterior dislocation of the lens into the vitreous by pushing with the thumbs. Knowing that the patient is relatively young with even very strong zonular fibers, this dislocation was done with too much pressure which probably damaged the ciliary body and caused the intraocular hemorrhage.

The filling of the irido-corneal angle and the trabecular meshwork by blood elements in the anterior chamber may have reduced the drain out of the aqueous humor and caused a significant increase of the intraocular pressure. That in turn may have caused an ischemia of the optic nerve and, the consequence of this ischemia was the functional loss of the eye. If this patient had immediately gone to see an expert after this "trauma", an early treatment could have saved his eye. But once again the conflict between traditional medicine and modern medicine has prevented him from to early seek help from modern medicine. In fact, according to some traditional healers, modern medicine undermines the effectiveness of traditional medicine. That is probably the reason why the patient was asked not to use modern medicine.

Modern medicine is founded on a number of principles including the right of the patient to get the right information. Was the desertion of the patient a sign of despair due to our "openness" about the chance of recovering the use of his right eye? Have we unconsciously reinforced this patient's belief about the limited effectiveness of modern medicine?

#### **4. Conclusion**

The positive diagnosis of cataract is relatively easy, especially when it is enough developed into a leucocoria. That is why traditional healers can find cataracts by using a flashlight. However, they are not qualified enough to treat it because their methods are no longer used in developed countries due to subsequent complications which often lead to blindness. If African traditional medicine as a cultural and social heritage strongly rooted in our communities cannot be forbidden, then there should be rules that apply to it in an appropriate way.

The objectives for these rules should be to build on traditional knowledge as far as medicinal plants and practices are concerned by defining a jurisdiction for the traditional healers. As far as cataract is concerned, their ability may be limited to detecting the disease and referring the patient to a center of experts. Only then will we be able to benefit from ancestral knowledge without repeating its effects which are sometimes harmful.

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