



Blindness Resulting from Instillation of Miss Paris Perfume into a 2 Year Old Child's Eyes during Febrile Convulsion: Case Report

Omolayo A. Olubosedé^{1*}, Stella A. Adegbehingbe² and Olaseinde E. Bello¹

¹State Specialist Hospital, Akure, Ondo State, Nigeria.

²Millennium Eye Centre, Akure, Ondo State, Nigeria.

Authors' contributions

This work was carried out in collaboration between all authors. Author OAO designed the study, provided clinical care for the patient and wrote the first draft of the manuscript. Authors SAA and OEB provided clinical care for the patient participated in the writing of the manuscript and literature searches. All authors critically reviewed the manuscript and approved the final version.

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Case Report

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ABSTRACT

Convulsion is frightening when it occurs and some caregivers even think that the child is dying. Efforts are usually made to stop the convulsion at all cost. Many of the interventions carried out are useless, and some are harmful. We report this unusual intervention of applying a substance, "Miss Paris Perfume" to the eyes of a two year old girl which resulted into corneal opacity and subsequent blindness.

We are reporting this case to call attention to this unusual but preventable cause of blindness. Health education on the correct immediate management of convulsion at home should be carried out continuously.

Keywords: Blindness; febrile convulsion; corneal opacity; 'Miss Paris Perfume'.

*Corresponding author: E-mail: oolubosed@yaho.com;

1. INTRODUCTION

Convulsions are common reasons for presentation at the children emergency rooms (CHER) [1-3]. The incidence ranges from 3 – 20 percent [4-6]. It is a common cause of childhood morbidity and mortality in the developing world [7,8]. During a convulsion, the eyeball may roll upward or to one side, breathing may appear laboured and saliva may ooze from the mouth. The teeth are usually tightly clenched, sometimes causing serious bites to the tongue and the cheek [4]. Thus convulsion provokes much parental fear and anxiety when it occurs especially for the first time. Some parents even think that the child is dying [9,10]. Consequently, multiple and often harmful measures are taken, most of which contribute to the higher mortality and poor prognosis of childhood convulsion in this part of the world [11,12]. Even though febrile convulsion tends to carry a good prognosis all over the world, it could be associated with significant morbidity and mortality in Africa due to the socio-cultural background of the community in which modes of therapy that are detrimental to the health of the children may be administered [2,13,14]. We are reporting this case of a previously well two year old girl with blindness as a result of intervention taken during an episode of febrile convulsion. This is to call the attention of every health care worker to the need to continue to educate parents and caregivers on the right home management of febrile convulsion.

2. CASE

Patient is a two year old girl who presented in the hospital from Ondo town, which is about 40 minutes' drive away. Patient had had "Miss Paris perfume" instilled into the eyes at home in an attempt to resuscitate her during an episode of convulsion three weeks earlier. She was apparently well until about a month before presentation when she developed fever and convulsed. She was splashed with a chemical substance "Miss Paris Perfume" which also got into the eyes. The quantity of the perfume that got into the eyes could not be ascertained. There was redness, tearing, purulent discharge, reduced vision and photophobia. The acute phase was managed at home. The parents later realised that child was no longer able to see about a week before the presentation. She was delivered via spontaneous vertex delivery and development has been normal. She is the second of three children in a monogamous

family. She had been previously healthy and there was no convulsion in the past. The main findings on examination were in the eyes. The visual acuity in both eyes was light perception. The eyelids and conjunctival fornices were normal, but the conjunctival were injected. There were bilateral diffuse corneal opacities. Fig. 1 shows bilateral corneal opacities, while Fig. 2 shows both bilateral corneal opacities and conjunctival injection. A diagnosis of bilateral corneal opacity secondary to chemical injury was made. However, the patient was lost to follow-up.

3. DISCUSSION

Convulsion is a common symptom among children. The commonest cause of convulsion among children is febrile convulsion [1-3]. Febrile convulsion has good prognosis and there is usually full recovery without neurologic sequelae [2]. Several actions are usually taken by parents and caregivers whenever there is febrile convulsion. Many of these actions are not beneficial while some are out rightly injurious to the child [2,9,11,13,14]. This is understandable because febrile convulsion is frightening when it occurs [9]. Febrile convulsion is a common reason for presentation at the children emergency room. The outcome is also very good as it resolves once the underlying cause is treated. Several interventions are carried at home such as pouring water on them, oral administration of substances such as salt, onions, palm oil, herbal concoctions, and cow's urine, gagging the mouth, putting pepper in the eyes and putting parts of the body on fire [2,11,13]. The major causes of blindness in children vary widely from region to region, being largely determined by socioeconomic development, and the availability of primary health care and eye care services. In high-income countries, lesions of the optic nerve and higher visual pathways predominate as the cause of blindness, while corneal scarring from measles, vitamin A deficiency, the use of harmful traditional eye remedies, ophthalmia neonatorum, and rubella cataract are the major causes in low-income countries. Retinopathy of prematurity is an important cause in middle-income countries. Other significant causes in all countries are congenital abnormalities, such as cataract, glaucoma, and hereditary retinal dystrophies [15].

Report of blindness resulting from interventions at home during convulsion is not common. Our search for previous reports of blindness resulting

from interventions during febrile convulsion did not yield any result. "Miss Paris perfume" is high in alcohol content and is usually used for religious purposes by some "white-garment" churches in Nigeria. Figs. 3 and 4 shows the picture of "Miss Paris" perfume. The concentration of alcohol in this perfume is not indicated on the bottle. It is possible that a large quantity of the perfume got into the eyes since the bottle not have a spraying nozzle. The prevalence of blindness is 0.3 per 1000 and 1.2 per 1,000 in developed and developing countries in the year 2000. Approximately three-quarters of the world's blind children live in the poorest regions of Africa and Asia. In poor countries it is estimated that 60–80% of blind children die within 1–2 years of becoming blind [16].



Fig. 1. Showing bilateral corneal opacities

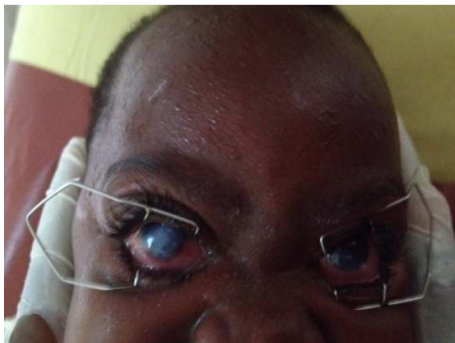


Fig. 2. Showing bilateral corneal opacities and conjunctival injection

There are about 1.4 million blind children in the world [17,18]. An estimated 40% of severe visual impairment and blindness was due to potentially avoidable causes [17,18]. There is enormous loss of Disability Adjusted Life Years (DALYs) when a child is blind [19]. The global cost of blindness with the onset in childhood in terms of

lost capacity of earning has been estimated to be between US\$ 6,000 and \$27,000 million [20]. Visual disabilities in children are more complex compared to those in adults. Without visual stimulus, the child's overall development suffers. In addition to the disabled child, his/her family and the society at large are also negatively affected.



Fig. 3. Picture of "Miss Paris" perfume showing one side



Fig. 4. Picture of "Miss Paris" perfume showing the other side

4. CONCLUSION

Serious harm can come to a child when convulsion is not managed appropriately at home. Therefore, there is need for continuous

public enlightenment on the proper pre-hospital management of convulsion and protection of the eyes. Every health worker should continue to educate parents and caregivers on the right home management of febrile convulsion whenever the opportunity to do so arises.

CONSENT

All authors declared that written informed consent was obtained from the patient's parents for publication of this paper and accompanying images.

ETHICAL APPROVAL

Authors have obtained all necessary ethical approval from the Institution where the patient was seen (Millennium Eye Centre, Akure, Ondo State).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Akpede GO, Abiodun PO, Skyes RM. Pattern of infections in children under – six years old presenting with convulsion associated with fever of acute onset in a children emergency room in Benin City. *Nig J Trop Paediatr.* 1993;39:11-15.
2. Obi JO, Ejeheri NA, Alakija W. Childhood febrile seizures (Benin City experience). *Ann Trop Paediatr.* 1994;14:211-214.
3. Sadleir LG, Scheffer IE. Clinical review, febrile seizures. *BMJ.* 2007;334:307-311.
4. Johnston MV. Seizures in childhood. In: Behrman RE, Kliegman RM, Jenson HB, Stanton BF. (Eds). *Nelson textbook of pediatrics*, 18th ed. Philadelphia, WB Saunders. 2007;2457-2471.
5. Diakparomre MA, Obi JO. The pattern of pediatric emergencies in the University of Benin Teaching Hospital. *Nig J Paediatr.* 1980;7(2):43-45.
6. Idro R, Giver S, Kahindi M, Gatakaa H, Kazungu T, Ndiritu M, et al. The incidences, aetiology and outcome of acute seizure in children admitted to a rural Kenyan district hospital. *BMC Pediatric.* 2008;8:5.
7. Wammanda RD, Ali FU. Conditions associated with the risk of death with 24 hours of admission. *Ann Afr Med.* 2004; 3(3):134–137.
8. Ojukwu JU, Ogbu CN, Nnebe-Agumadu UH. Post- neonatal medical admission into the paediatric ward of Ebonyi State University Teaching Hospital, Abakaliki. The initial experience and outcome. *Nig J Paediatr.* 2004;31(3):79-86.
9. Iloeje O. The impact of social-cultural factors on febrile convulsion in Nigeria. *West Africa J Med.* 1990;8:54-58.
10. Baumer JH, David TJ, Valentine SJ, Roberts JE, Hughee BR. Many parents think that their child is dying when having a first febrile convulsion. *Dev Med Child Neurol.* 1981;23(4):462-464.
11. Ndukwe KC, Folayan MO, Ugboko V, Elusiyan JBE, Laja OO. Orofacial injuries associated with prehospital management of febrile convulsion in Nigerian children; 2005.
DOI: 10.1111/J.1600-9657. 00411/
12. Mosser P, Schmutz E, Winkler AS. The pattern of epileptic seizures in rural Tanzania. *J Neurol Sci.* 2007;258(1-2): 33-38.(Abstract)
13. Ofovwé GE, Ibadin OM, Ofovwé EC, Okolo A. Home management of febrile convulsion in an African population of urban and rural; mother's knowledge, attitude and practice. *J Neurol Sci.* 2002; 1(2):49-52.
14. Okoji GO, Peterside IE, Oruambo RS. Children convulsions: A hospital survey on traditional remedies. *Afr J Med Sci.* 1993; 22: 25-28.
15. Susan Lewallen, Paul Courtright. Blindness in Africa: Present situation and future needs, *Br J Ophthalmol.* 2001;85: 897-903.
DOI: 10.1136/bjo.85.8.897
16. Gilbert C, Foster A. Childhood blindness in the context of VISION 2020—the right to sight. *Bull World Health Organ.* 2001; 79(3):227–232.
(Epub 2003 Jul 7)
[PMC free article] [PubMed]
17. Yorston D. The global initiative vision 2020: The right to sight childhood blindness. *Community Eye Health.* 1999; 12(31):44–45.
[PMC free article] [PubMed]
18. Njuguna M, Msukwa G, Shilio B, Tumwesigye C, Courtright P, Lewallen S.

- Causes of severe visual impairment and blindness in children in schools for the blind in eastern Africa: Changes in the last 14 years. *Ophthalmic Epidemiol.* 2009; 16(3):151-155.
19. Rahi JS, Gilbert CE, Foster A, Minassian D. Measuring the burden of childhood blindness. *Br J Ophthalmol.* 1999; 83(4):387–388. [PMC free article] [PubMed]
20. Smith AF, Smith JG. The economic burden of global blindness: A price too high! *Br J Ophthalmol.* 1996;80(4):276–277. [PMC free article] [PubMed]

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