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# Is Couching Rare in the Pediatric Age Group? A Report of Bilateral Couching in a Child

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## Abstract

**Background:** Couching, an ancient procedure for cataract surgery, is unfortunately still being practiced in many developing countries. There are several reports of couching in adult populations; however, literature is sparse on its occurrence in children. **Case report:** We report a case of a 10-year-old boy who had bilateral couching on account of congenital cataracts due to presumed congenital rubella syndrome. The patient had initially presented to our clinic during neonatal period and was scheduled for surgery. Unfortunately, surgery was not performed due to various reasons which were either patient related or health system related. He represented to the eye clinic 6 years post-couching with complaints of poor vision. **Conclusion:** This report aims to highlight the fact that couching is, indeed, being performed on children's eyes, especially as a consequence of inefficiencies in the eye healthcare delivery system.

**Keywords:** Africa, cataract, childhood, couching, Nigeria

## INTRODUCTION

Couching is an ancient procedure for cataract surgery that unfortunately is still being practiced in many developing countries.<sup>[1]</sup> It was first described by an Indian surgeon, Sushruta, about 600 BC.<sup>[2]</sup> It commonly involves inserting a sharp needle or instrument into the eye a few millimeters behind the limbus to dislocate the lens into the vitreous.<sup>[3]</sup> Visual outcome is usually very poor and it is associated with numerous complications.<sup>[4]</sup> The procedure which commonly does not involve the use of anesthetic agents has been described as painful with pain lasting for days to weeks.<sup>[5]</sup> There are several reports on couching in adults; however, literature is sparse on its occurrence in children.<sup>[5-7]</sup> This is a case report of bilateral couching in a child with congenital cataract highlighting the fact that couching may be an alternative option for some parents of children with childhood cataract in developing countries especially in the absence of efficient eye care systems.

## Case Report

A 10-year-old boy presented to our unit with history of poor vision from childhood. He had initially presented at the age of 3 weeks when a diagnosis of congenital cataract probably due to presumed intrauterine rubella infection was made. He was

scheduled for cataract surgery at that time and was referred for pediatric cardiology consultation to screen for cardiac and other congenital anomalies prior to general anesthesia. There was a delay in the evaluation at the pediatric cardiology clinic because the parents were unable to pay for the requested investigations. This also delayed the surgery and the patient defaulted for a period of 15 months.

At the age of 16 months, patient presented again and eventually underwent a pediatric cardiology evaluation during which a patent ductus arteriosus was detected. The cardiac defect simply required conservative management and he was declared fit to undergo general anesthesia. However, surgery was postponed again due to unavailability of theater space at that time. Surgery was rescheduled for a month later, however, the child failed to show up on the scheduled date of surgery and was subsequently lost to follow-up for over 8 years.

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When he represented at age 10, his mother stated that she had sought for alternative care and following a recommendation from the patient's aunt, bilateral couching was performed at the age of 4 years. Couching was said to have been performed on one eye at a time within an interval of 2 weeks. The mother reported that he was not sedated for the procedure which lasted less than an hour on each occasion. There was some improvement in vision after the "procedures"; however, this improvement was not impressive as he could neither read nor write. This difficulty with school activities prompted the mother to bring the patient for the third time to the clinic at the age of 10 years.

On general physical examination at third presentation, patient was small for age (54% of expected weight), had dysmorphic features (orbital hypertelorism, low set ears, microcephaly), and a pansystolic murmur. An echocardiogram revealed a patent ductus arteriosus and a small atrial septal defect.

Visual acuity was hand movement in both eyes, which improved to counting fingers at 3 m in both eyes with a +10 diopter lens. He had horizontal pendular nystagmus and microcornea (corneal diameters were 10 × 10 mm in both the eyes). There was no corneal or limbal scar in either eye or any sign of previous surgery. He was aphakic in both eyes with visual axis opacification, which appeared to be due to some remnants of posterior capsule. He also had pigments in the vitreous with syneresis. There was no view of the dislocated lenses in the vitreous. He had pink discs with mild temporal pallor and cup to disc ratio of 0.3 in both eyes. Intraocular pressures were 20 and 23 mmHg in the right and left eye, respectively, whereas the axial lengths on ultrasound scan were 22 and 23 mm in the right and left eye, respectively.

A clinical impression of bilateral aphakia secondary to couching with severe amblyopia and background presumed congenital rubella syndrome was made.

He had bilateral surgical capsulectomy with anterior vitrectomy and peripheral iridectomy under general anesthesia. Postoperatively, best-corrected visual acuity was 6/60 in the right eye with +15.50 diopters sphere and counting fingers in the left eye with +16.00 diopters sphere. Spectacles were dispensed and he has undergone low vision assessment.

## DISCUSSION

Cataract is the most important cause of avoidable blindness in children.<sup>[8]</sup> In Nigeria, 79% of lens-related blindness and severe visual impairment in children is due to unoperated bilateral congenital or developmental cataract.<sup>[9]</sup> These cataracts are "unoperated" because of various reasons including poor access to healthcare, inadequate number of pediatric ophthalmologists, and socioeconomic factors.<sup>[10,11]</sup> In this report, although the child had contact with a pediatric ophthalmologist at an early age, there were many identified barriers to having the surgery immediately. A major barrier being inability to pay for healthcare as the family had no

health insurance cover and payment was out of pocket. The cost of treatment has been identified as a major barrier to accessing healthcare in most developing countries.<sup>[10,12]</sup> Thus, the need for an effective health insurance system especially for young children cannot be overemphasized.

Couching among adults with cataract is still widely practiced in Nigeria and usually has very poor visual outcomes.<sup>[4]</sup> There are not many cases of couching reported in the pediatric age group. Our case report portrays the fact that parents may choose couching as an option for treatment of childhood cataract and there may be unreported cases of couching in children. A study in the Gambia reported a case of couched cataract in a child.<sup>[13]</sup> This further buttresses the suggestion that, in developing countries, some parents may be choosing couching as alternative care for pediatric cataract.

The care of congenital cataract is multidisciplinary and involves the pediatrician, anesthesiologist, and pediatric ophthalmologist among other healthcare practitioners. This multidisciplinary approach makes the management of childhood cataract more complex than adult cataracts. There is a need for child eye health facilities to have efficient counseling units and social welfare units to provide support to parents of children with cataracts and help them understand this complexity. This should go a long way in ensuring better uptake of surgery while improving adherence to treatment. This support system is lacking in most developing countries especially in sub-Saharan Africa where the practice of pediatric ophthalmology is at its nascent stage.<sup>[12]</sup>

For our patient, surgery was deferred three times due to delay in evaluation by the pediatric cardiologist (as his parents were unable to afford investigations) and delay in accessing theater due to some logistic problems within the hospital. All these barriers and other socioeconomic reasons that were not identified and addressed properly made the mother to opt for couching. It has also been reported in literature that recommendation from others, ignorance, fear, and the cost of surgery are reasons why some patients opt for couching.<sup>[5]</sup> Some of these reasons are similar to those of our patient. Surgery for childhood cataract in Nigeria and other parts of Africa have shown good outcome.<sup>[14,15]</sup> And as the pediatric ophthalmology subspecialty continues to evolve in sub-Saharan Africa, there is also the need for training of supportive staff especially professional counselors to educate parents on the complexity of childhood cataract while encouraging them to adhere to treatment plan and clinic visits to prevent similar occurrence of cases like this.

## CONCLUSION

Couching for childhood cataract, although not widely reported in literature, may be underreported. This case report highlights the fact that some parents may opt for couching, despite its poor outcome, in the setting of an inefficient healthcare system.

### Presentation at a meeting

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### Conflicts of interest

There are no conflicts of interest.

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