

Management of Four (4) Cases of Congenital Total Eversion of the Upper Lids using a Non-invasive Method in Northern Benin

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ABSTRACT

Rare affection of the newborn, occurring most often at birth, the total congenital eversion of the eyelids has varied management's techniques. The preferred first-line treatment is the non-invasive conservative technique. We present, in this study, four cases of newborn successively, the first of 8 h old, the second of 12 h old, the third of 24 h old, and the fourth of 48 h old, admitted for congenital abnormalities of the eyelids. Eye examination confirmed the diagnosis of total congenital eversion of the upper eyelids. The reposition of the everted eyelids kept the palpebral conjunctiva edema in the normal position within a short time. The application of the ophthalmic ointment and a compressive eye pad shortened the psychological disturbance of the parents to no more than 72 h.

Key words: Compressive eye pad, congenital eyelid eversion, newborn, non-invasive conservative method

INTRODUCTION

Described for the 1st time in 1896 by Adams,^[1] the total congenital eversion of the upper eyelids is a rare eye condition of unknown cause. Most of the cases described in literature were present at birth, but some cases of late onset have also been reported.^[2] This palpebral abnormality constitutes a high risk of amblyopia and corneal perforation if it is managed lately. We are reporting four cases of total congenital eversion of eyelids observed within a period of 6 months in the Northern Benin.

CASE REPORT

Case 1

This case was an 8-h-old male newborn admitted at the eye unit of the Departmental and University Health Center

of Borgou in Northern Benin for total and bilateral upper eyelids eversion on May 16, 2018. The mother was at her third gestation with full-term pregnancy of 9 months. There was no medical follow-up.

The delivery was eutocic in a non-registered private health center. There was a meconium amniotic fluid. Examination of the eyelids has found a double upper eyelid eversion with significant chemosis. The eyeballs were completely obstructed. HIV serology was negative as well as venereal disease research laboratory/treponema pallidum hemagglutination assay in the mother. Toxoplasmosis and rubella test were positive. The newborn was treated on an outpatient basis by repositioning the eyelids after application of ophthalmic ointment and a compressive eye pad maintained over a period of 48 h. The results were showed a rapid resolution of the edema with normal anatomical recovery of the eyelids.

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Case 2

It was a newborn of 24 h old, female, weighting 3000 g admitted for the management at Saint Andre Hospital in Tinre (HOSAT) on June 13, 2018, for eye inflammation found at the birth. Her mother was 30 years old and had a



Figure 1: Total bilateral upper lid eversion



Figure 2: Total bilateral upper lid eversion in 24-h-old newborn



Figure 3: Total bilateral upper lid eversion



Figure 4: Total left upper lid eversion

pregnancy without any medical follow-up. There was no pre-labor rupture of the membranes due to prolonged labor. The amniotic fluid was normal in appearance. There was normal cephalic birth and the delivery was eutocic. Apgar score was 10 in the 1st and 5th min. The 33 years old father had no particular medical history. In the family, there is no congenital malformation history. The eye examination of the newborn showed a total eversion of the two upper eyelids. The palpebral conjunctiva was edematous and hyperemic, giving rise to mucopurulent secretions. The eyeballs were safe. The diagnosis was an isolated bilateral congenital eversion of the upper eyelids associated with ophthalmia neonatorum. The only investigation done was a blood cell count. The newborn was admitted and treated with saline solution followed by local application of antibiotic eye drop, 1% tetracycline ointment and a 72 h compressive eye pad.

Case 3

A newborn is brought to hospital a few hours after birth at home for ocular malformations. The 45-year-old mother had 10 pregnancy, 10 parities with 8 home deliveries. This last pregnancy was followed medically. She had a pre-labor rupture of the membranes of more than 48 h. Delivery was headfirst presentation on August 31, 2018, at home and was eutocic delivery according to parents. The Apgar score undocumented but cries immediately at birth, newborn care at birth undocumented also.

Eye examination with a magnifying loupe 2.5 dioptries found a severe swelling of the two palpebral conjunctiva in the everted position. The eyeball was fully covered due to the importance of the chemosis. The examination of the everted eyelid confirmed the transparency of the cornea. There were also some secretions on the everted eyelids that had an early dryness due to prolonged exposure. The diagnosis was a double congenital upper lid eversion. The management was similar to previous cases.

Case 4

Newborn of 48-h-old female referred from a health center in the extreme north of Benin Republic for ocular malformation found at birth on November 23, 2018. No history of medical follows up during the pregnancy. Admitted at 7 pm in the health center, the delivery took place 9 h earlier and was eutocic. There was no history of pre-labor rupture of the membranes. The amniotic fluid was normal in appearance. The presentation was cephalic and normal deliverance. No episiotomy or forceps used. Apgar's score was 10 in the 1st and 5th min. At the eye examination of the newborn, there was a total eversion of the left upper eyelid. The palpebral conjunctiva was edematous and hyperemic. Moreover, the eyeball was safe. The right eye was in normal anatomic position. The diagnosis was an isolated congenital eversion of the left upper eyelid associated with ophthalmia neonatorum. No blood investigation was performed. The neonate was admitted and was treated with

saline solution followed by local application of antibiotic eye drops and ointment. A compressive dressing for a duration of 72 h was performed.

DISCUSSION

At the birth of a child, it is rare to observe a total eversion of the upper eyelids with chemosis and total obstruction of the visual axis [Figures 1,2,3]. The congenital total eversion of the eyelid is always bilateral according to Duke-Elder.^[3] In our series of four cases, only one was unilateral [Figure 4] meaning the possible unexpected occurrence of this rare presentation. In Ghana, unilateral cases have been reported by Abiose.^[4] The newborns reported in many cases have good health with normal delivery. However, cases associating with trisomy 21^[5,6] and baby collodion have been described.^[7]

Methods of the management of total congenital eversion of the upper eyelids have been suggested. It appears that the most commonly method used is the non-invasive approach in which ophthalmic ointment antibiotics are applied to prevent superinfection^[8] and protect the eyeball with a clear shell to prevent desiccation.^[6] Other methods use 5% saline solution, lubricants, and floating eye pad.^[9,10] These methods of management led to a recovery time ranging from 2 to 3 weeks. Surgical treatment options are also made consisting of tarsorrhaphy using suture to obtain inversion. The redundant conjunctiva is excised, injection of hyaluronic acid and graft of the upper eyelid are used.^[11,12]

In our cases, we have proceed for a non-invasive conservative treatment. The technique consisted of repositioning the eyelid. The lid margin is held and pushed slightly upward, from this position, all chemoses are compressed at the upper fornix. After application of tetracycline 1% ophthalmic ointment, a compressive eye pad is maintained by adhesive plaster. The care is ambulatory. The anatomical reposition and functional recovery of the eyelids occurred over a period of 72 h. Bilateral congenital eversion, once properly managed, regresses without leaving sequelae. Complications such as deprivation amblyopia^[13] and cases of corneal perforation are possible.^[12] In the four cases reported, the quick referral time to a specialized eye center makes the management successful with rapid recovery. The effectiveness of compressive eye pad treatment over a period of 48 h significantly reduced the psychological impact on the parents.

CONCLUSION

The total congenital eversion of the upper eyelids is a rare condition that still appears in our area. Medical practitioners

should be prepared to receive these cases at any time by making a referral to specialized center without delay. The management is non-invasive conservative. It proceeds by applying tetracycline ointment and compressive dressings. All other practitioners at the peripheral level should be aware of this palpebral abnormality of the newborn for a quick and effective reference. The education of parents on the monitoring of pregnancies and deliveries in a hospital will significantly reduce its occurrence and also improve its appropriate care.

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