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Congenital Isolated Facial Palsy Associated With Cleft Lip and Palate.

Mazen Alzahrani[1], Salem Alghamdi [2], Thamer Basodan[1], Amal Emam[3], Muhammad Abdul Rehman[4], Alaa Nawawi[5], Salem Bahttab[6]

[1]Resident, Department of Ophthalmology, East Jeddah Hospital, Jeddah, Saudi Arabia.
[2]General practitioner, primary health care, Alrabuah, Jeddah, Saudi Arabia.
[3]Dental Resident, Department of Dental, East Jeddah Hospital, Jeddah, Saudi Arabia.
[4]Senior specialist, Department of Ophthalmology, East Jeddah Hospital, Jeddah, Saudi Arabia.
[5]Neonatology consultant, Department of neonatal intensive care, East Jeddah Hospital, Jeddah, Saudi Arabia.
[6]Consultant, Department of Ophthalmology, East Jeddah Hospital, Jeddah, Saudi Arabia.

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ABSTRACT

We like to report a rare case of a 1 month-old baby boy patient, born with incomplete right eye closure associated with bilateral cleft palate and lip. Diagnosed with House–Brackmann Grade V right isolated congenital right Facial nerve palsy and exposure keratopathy. Two months later, he slightly improved and consequently requiring further management approach accordingly.

Keywords: Congenital Facial palsy, Bell's palsy, Seventh cranial nerve, cleft palate, and cleft lip.

INTRODUCTION

Congenital isolated Facial palsy present at birth still uncommon and frequently associated with other abnormality such microtia, cleft palate and or lip. Around 70% of facial palsy cases can be resolved spontaneously.[1] The incidence is between 2.7 – 4.2 per 100 000 children below 10 years old.[2]
We reported here isolated congenital Facial nerve palsy associated with bilateral cleft palate and lip, which is a rare case. We conducted this study along with clinical profile of cleft palate and lip possibility management approach.

CASE REPORT

1 month-old baby boy patient was born at 35 gestational weeks, his mother underwent cesarean section surgery due to twin pregnancy and previous section, and a mother known diabetic on insulin (IDM). The boy associated with complete bilateral cleft palate and lip. No history of family hereditary diseases. The boy has admitted to the Neonatal Intensive Care Unit. The feeding is by nasogastric Tube. No history of loss of conscious or fits. By examination: O2 saturation on room air Blood pressure (62/38), The APGAR score at 1 minute 7/10, 5 minutes 10/10 with body weight 2.360g. Patient conscious and he looks normal with no jaundice or pallor. Moving all limbs normally. The rest of examination was irrelevant.
The chromosomal analysis result 46, XY Normal male karyotype. Rest of laboratory investigation and radiology were within normal. We had consulted to see his right eye discharged, after the initial assessment, we found the right eye has positive bell's phenomenon, incomplete right eyelid closure and facial asymmetry noted when he was in rest or crying [Figure 1] Exposure Keratopathy with scanty conjunctiva discharged that give us clue to rule out right facial nerve palsy. He has no Nystagmus or other cranial nerves abnormality. The next step has done as send the eye swab for culture and sensitively, subsequently, declared positive for Klebsiella pneumonia. Gentamycin eye ointment, according to eye swab sensitivity was started for 1 week along with frequent eye lubricating drops and ointment. The precaution to protect cornea was considered such close the eyelid with patch during sleep. After the treatment and close monitoring, patient seen again with clear cornea and discharge free of bacteria as long as confirmed House–Brackmann Grade V congenital facial palsy by Pediatric neurologist. Two months later, we noticed there slightly improve of eye closure Fig.2

Name & Address of Corresponding Author
Dr. Mazen Alzahrani,
Resident,
Department of Ophthalmology,
East Jeddah Hospital,
Jeddah,
Saudi Arabia.

Thereafter; he was planned to transfer for a multidisciplinary approach.

Figure 1A: Right Facial Nerve paralysis (At Rest) out deviation of angle of mouth, less prominence of right naso-labial fold, wide Right palpebral fissure and absence of forehead wrinkles.

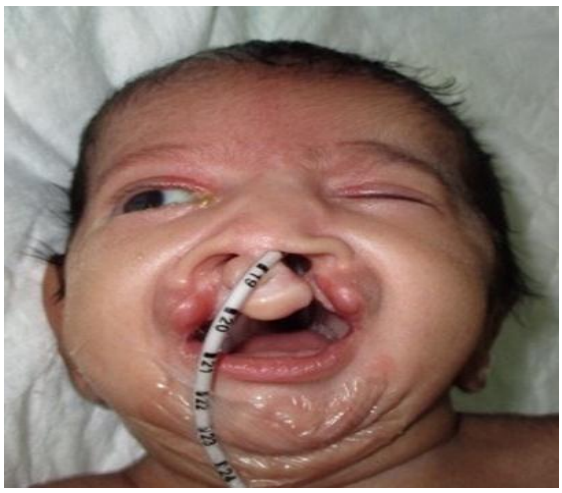

Figure 1B: Right Facial Nerve paralysis (At cry) out deviation of angle of mouth, less prominence of right naso-labial fold, wide Right palpebral fissure and absence of forehead wrinkles.

Figure 2A: (At Rest) out deviation of angle of mouth, more prominence of right naso-labial fold, Right palpebral fissure getting improve and absence of forehead wrinkles.

Figure 2B: (At Cry) out deviation of angle of mouth, more prominence of right naso-labial fold, Right palpebral fissure getting improve and absence of forehead wrinkles.

DISCUSSION

Among causes of congenital facial paralysis is traumatic at birth due to relatively its superficial extra cranial course, which considered 78–91 percent.[3] Could be either by intrauterine posture, prenatal compression because cephalopelvic disproportion (CPD) or during delivery by using instrument such forceps or vacuum (ventouse), and a birth weight greater than 3500g can lead to delivered baby with a facial palsy.[4] The facial nerve is essentially supply facial expression as a motor nerve and supply the lacrimal and salivary glands as well as has an effect on tears secretion by parasympathetic fibers of sensory functions. In some etiology such agenesis of facial nucleus is considered a rarer, which rule out by special machine, high resolution three dimensional constructive interference steady state (3D CISS) (MRI).

The other causes associations such as Poland syndrome, congenital facial palsy with unilateral under development of the pectoralis muscle with syndactyly. Moebius syndrome is hypoplasia of the V, VI, VII and VIII cranial nerves/nuclei associated clubbed feet, missing fingers or toes, abnormal chest-wall and strabismus.[5] Sign of trauma such as behind ear ecchymosis and hemoperitoneum can predict the traumatic causes, and it have good prognosis where improvement occurs within a few weeks unless the nerve is completely torn[6] The disordered of congenital facial nerve agenesis has poor prognoses comparing to whom are traumatic.[7]

Cleft lip and cleft palate are considered the most common congenital defects involving craniofacial structure with incidence around 2,55/1000 newborn, developing in the early embryonic stages between the 4th and 8th week of intrauterine life.[8] The etiology is varied, where both genetic and

environmental factors play a role in it.[9] The treatment of cleft palate and lip require comprehensive care interdisciplinary team approach along with collaboration of orthodontist in early child life to avoid common characteristics such as low self-esteem, dependence on parents, avoidance of social contacts, communication difficulties, depression, stress, and difficulty in learning.

CONCLUSION

Our case shown slightly spontaneous improvement during his stay in our neonatal intensive care unit that reflects probably the cause is traumatic, nevertheless, attention of a multidisciplinary team include a pediatric neurologist, a psychologist, a geneticist, a speech therapist and a plastic surgeon needed to undergo for varied management approach accordingly.

Consent and funding declaration

Informed consent singed by patient's father regarding the publication of case report in any platform. There is no any financial support received for this submission.

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