International Journal of Contemporary Pediatrics
Saurabh K et al. Int J Contemp Pediatr. 2023 Dec;10(12):1857-1858
http://www.ijpediatrics.com
pISSN 2349-3283 | eISSN 2349-3291

DOI: https://dx.doi.org/10.18203/2349-3291.ijcp20233610

Case Report

Facial nerve palsy in a neonate secondary to acute otitis media

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Received: 29 September 2023
Accepted: 02 November 2023

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ABSTRACT

Neonatal septicemia continues to be a significant cause of neonatal morbidity and mortality. Acute otitis media may be associated with sepsis, though the association is not very common. Facial nerve palsy is a rare complication of otitis media in neonates. Other more common causes of facial nerve palsy are traumatic (birth trauma) and idiopathic (Bell's palsy). Through this article, we report a rare case of facial nerve palsy secondary to otitis media in a neonate with sepsis.

Keywords: Newborn, Otitis media, Sepsis, Seventh nerve

INTRODUCTION

Septicemia is the most common cause of neonatal morbidity and mortality worldwide. It can be associated with meningitis, pneumonia, osteomyelitis and urinary tract infections. Acute otitis media is not commonly associated with septicemia in the neonatal age group.[1] It is seen more commonly in preterm neonates.[2] Otitis media presents with purulent discharge from the ears in neonates as in older children. Facial nerve palsy as a complication of otitis media is rarely seen nowadays due to prompt antibiotic administration. We report a rare case of the seventh nerve palsy in a neonate secondary to acute otitis media.

CASE REPORT

A 25-days old female baby, presented to the emergency with lethargy and respiratory distress. The baby was born at term and had a birth weight of 3000 g. The immediate neonatal period was uneventful, but there was a history of faulty feeding. The baby was predominantly on formula milk which was prepared inappropriately. The baby was sick looking and dull, had signs of malnutrition and weighed 2250 g at admission.

A diagnosis of septicaemia was made and prompt treatment with intravenous antibiotics (Injection ampicillin and gentamicin) was stared. Oxygen was started with nasal prongs. After initial stabilization, the baby was started on orogastric feeding. The baby had right nasolacrimal duct abscess and bilateral ear discharge. The blood culture and pus culture from the ear discharge showed a growth of *Pseudomonas aeruginosa* and the antibiotics were changed to piperacillin/tazobactum and amikacin as per the sensitivity report. Lumbar puncture showed a normal cerebrospinal fluid analysis. The baby showed gradual improvement, the respiratory distress settled and the baby was maintaining saturation in room air with no requirement of supplemental oxygen by day 4 of admission. The baby continued to receive orogastric feeding. As the baby improved and started crying, facial asymmetry was observed which was due to left lower motor neuron facial nerve palsy (Figure 1). Pre-illness photographs confirmed that the palsy was not present before the illness. Therefore, we concluded that the facial nerve palsy was due to acute suppurative otitis media. The baby was treated with 14 days of intravenous antibiotics and supportive care. After counselling of the mother, she was able to exclusively breastfeed the baby at the time of discharge. The baby was doing well in follow up, the facial

nerve paly was persisting till the last visit of the baby at 3 months.

Figure 1: Left lower motor neuron facial nerve palsy in the neonate.

DISCUSSION

Facial nerve palsy is rare in neonates with an incidence of 0.23% to 1.8% of live births.[3] Majority of cases of facial nerve palsy in newborns are traumatic, accounting for 70-90% of all cases.[4] The risk factors for congenital traumatic facial nerve palsy are primigravida mother, birth weight >3500 g, difficult delivery, Caesarean delivery, and forceps application.[5] The prognosis is generally good in these cases with most babies recovering by 2 months. Idiopathic facial nerve palsy (Bell's palsy) has also been rarely reported in neonates.[6,7] Bell's palsy has been treated in neonates with 4-6 weeks of oral steroids with good outcomes. Rarely it may be associated with syndromes like CHARGE syndrome, Goldenhar syndrome, hemifacial macrosomia, Mobius syndrome, coloboma, heart defects, choanal atresia and ear abnormalities. A case series reporting facial nerve palsy in newborns, secondary to the compression of the facial nerve near its exit from the stylomastoid foramen due to application of tight CPAP interface was also published.[3] Facial nerve palsy in a neonate, secondary to otitis media has rarely been reported in literature.[8]

CONCLUSION

Facial nerve palsy may be a rare complication of acute otitis media neonates. In our case the otitis media was associated with septicaemia. The baby was an immunocompromised child due to malnutrition and faulty feeding. The management of such babies include prompt treatment with appropriate antibiotics and supportive care. The facial nerve palsy may take 4-6 months to resolve.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Saurabh K, Rai R, Singh DK. Facial nerve palsy in a neonate secondary to acute otitis media. Int J Contemp Pediatr 2023;10:1857-8.