ISSN: 0976-3031

International Journal of Recent Scientific Research

Impact factor: 5.114

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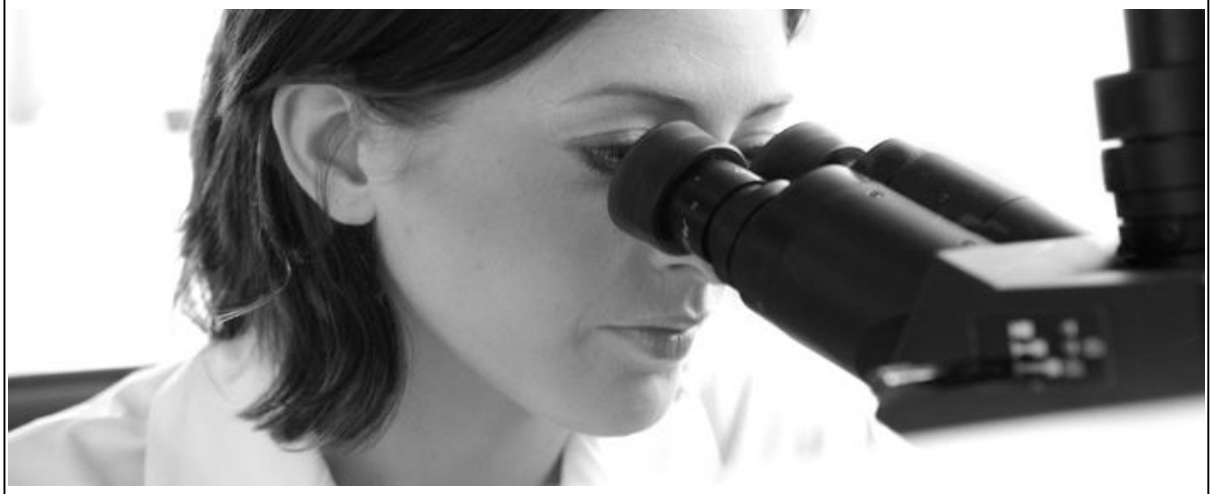

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Volume: 6 Issue: 10

THE PUBLICATION OF
INTERNATIONAL JOURNAL OF RECENT SCIENTIFIC RESEARCH
http://www.recentscientific.com
E-mail: recentscientific@gmail.com

ISSN: 0976-3031

Available Online at http://www.recentscientific.com

International Journal of Recent Scientific Research
Vol. 6, Issue, 10, pp. 7111-7113, October, 2015

International Journal of Recent Scientific Research

CASE STDY

AN UNUSUAL ORGANISM AS A CAUSE OF ACUTE NEONATAL SUPPURATIVE PAROTITIS

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ARTICLE INFO

Article History:

Received 05th July, 2015
Received in revised form 08th August, 2015
Accepted 10th September, 2015
Published online 28st October, 2015

Key words:

Klebsiella spp., neonatal suppurative parotitis, unilateral

ABSTRACT

Neonatal suppurative parotitis(NSP) is an uncommon illness .Parotid abscess is uncommon in neonates. It is frequently with, prolonged gavage feeding and dehydration. We report a case of a late preterm infant who developed the classical manifestation of unilateral (right) acute klebsiella spp suppurative parotitis progressing to formation of abscess which responded to antibiotic therapy in the neonate. Here, to the best of our knowledge we describe first case of newborn who developed neonatal supparative parotitis due to *Klebsiella* bacteria species

INTRODUCTION

Neonatal suppurative parotitis (NSP) is an uncommon illness in the neonate. Neonatal suppurative parotitis is a rare disease. Only few cases were reported in the English-language literature between 1970 and 2012[1]. This relatively rare entity generally responds well to antibiotic therapy, but does have the potential for serious complications. It is commonly caused by S. aureus but other bacterial isolates may be emerging. It is frequently related to prematurity, oral trauma, immunosuppressant, prolonged gavage feeding, ductal obstruction and dehydration of newborn that develop NSP[1]. Prematurity was reported in almost one-third of cases (32%) of NSP. This contrasts with the average worldwide prematurity rate of 9.6%.[10] Prematurity, therefore is a risk factor we describe first case of newborn who developed NSP due to Klebsilla species.

Case Report

A 22 days old male newborn presented With seizure like activity, irritability, hypoglycemic and icteric presentation Baby was delivered at 36 wks of Gestation through elective caeserian section in view of severe oligohydrominos. with birth weight was 2.500kg was done at institutional delivery, no trauma during birth; there were no evidence of materanal history of fever during antenatal period,regular antenatal scans were normal.Baby cried immediately after birth as there was mild respiratory distress baby was admitted in NICUand discharged on day 5 of life, and was on direct breast feeds. At home, baby was on exclusively breast feeded, and no top feeds wer given. Baby was brought to hospital on 22 postnatal day with complaints of fever, irritability, refusal of feeds, seizure like activity unilateral (right) pre-auricular swelling. There was no history of trauma to the infants face or head. On admission, the baby was febrile, irritable and dehydrated, weighing 2.3kgs and rectal temperature was 38.5. Examination revealed unilateral (right) fluctuant swelling and (left side was normal with no swelling or growth seen) swelling: from the right mandibular to the right preauricular region was observed, It was warm to touch. The overlying skin was inflamed. 4x5cm (Fig. 1). And coated tongue seen on anterior and posterior aspect of tongue with no bleeding sites .on applying pressure pus discharge was observed from the stensons duct was collected by sterile swab and sent for culture sensitivity. The anterior fontanelle was 1.5cm*1.5cm and occipito-frontal circumference was 33.5cm plotted on the 50th centile on the IAP growth chart corresponding to his length.

There was no lymphadenopathy or hepatosplenomegaly. Findings on the remainder of the physical examination were unremarkable. Laboratory test revealed-GRBS 117mg/DL, Hb

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13.6gm%, Total Wbc count 16000cells/mm3, Differantial Count (N-68, L-28, E-3, M-0) ESR 19 mm at end of 1hour, urine analysis, renal and liver function tests were normal. Ultrasonography of the parotid glands demonstrated enlarged unilateral (right) parotid gland with hypoechoic area compatible with acute suppurative parotitis (fig 3). Parotid pus was obtained by sterile swab, blood and urine cultures were obtained and sent for culture sensitivity .baby was supported with 2lits/min of O2 and first line of antibiotics started. but parotid pus culture isolated klebsillae organism which is sensitivity to vancomycin drug and baby was administered appropriate drugs with doses in the course time. After six days of therapy, the swelling started regressing. A 7days (week) course of iv medication resulted in complete recovery and baby discharged on 30th postnatal day of life.

Fig no 1

Figure No 2

Figure3

DISCUSSION

NSP is reported as more prevalent among male[1], with a male to female 3:1.[1]Ourpatient was male, late preterm In the presented case, the infant was breastfed. The most common presentation of NSP is fever and swelling and erythema in the pre-auricular area beginning at between 7 and 14 days of life. it is more come with prematuriy, prolonged gavage feeding and dehydration[2]. Other risk factors implicated were environmental hotWeather[3] excessive oral suctioning and nasogastric tubefeeding[4].The infection may be bilateral as in our case it presentd with only on unilateral (right) side. Neonatal suppurative parotitis is one of the differential diagnoses of facial swelling which include trauma, lipoma, and adenomas[5]. Parotid ultrasound may reveal adiffusely enlarged gland with a coarse echo pattern. Parotid gland infection may take place by one of two routes. Either ascending through the Stensen duct, and this appears to be the most common way, or by hematogenous spread as part of septicemia.[5,3,12,13]. Hematogenous spread was seen less frequently as part of septicemia either associated with early pneumonia, congenital malformations[5-14]. Multiple skin abcesse[6-15] as part of lateonset neonatal sepsis Our patient fulfilled the diagnostic criteria of suppurative parotitis, a combination of parotid swelling, purulent exudation from the Stenson's duct, and growth of pathogenic bacteria in culture of the pus. with ultrasound imaging with heterogeneous echogenicity.

S. aureus is the most commonpathogen (61%), MRSA was isolated in two of our three patients and was reported in one other study[6], followed by viridians Streptococcus species and Escherichia coli. Gram-negative organisms such as Klebsiella pneumoniae and P.aeruginosa have been implicated in nosocomial and hematogenous infections secondary to sepsis[5]. Recently anaerobic species have also been implicated. In our patient Klebsiella pneumoniae grew in the parotid pus culture. This is third case of neonatal parotitis by Klebsiella pneumonia[2-7]. The ideal duration of antibiotic treatment is not known, but the shortest effective duration reported in treating NSP due to S.aureus and in the absence of septicemia was 7 days[8-9] and thelongest was 21 days with anaerobic organisms[10].our patient progressed to develop abscess of 4cm*5cm that is of large on size to neonatal age despite Incision and drainage was not needed in our case. Only 23% needed surgical drainage. This included patients who came late to medical attention (more than 4–5 days from disease onset)[3-10] or the organism was resistant to the empiric antibiotic therapy[8-10]. as adequate dose of antibiotics Initially we started with first line of drugs cefipime and nitilimicin, later switched to vancomycin on culture sensitivity report and a treatment of 7days was given supportive drugs with calicium gluconate and neonatal multivitamin given duaration in the course. Parotid swelling, purulent exudates from the Stensen's duct and growth of the pathogenic bacteria in the parotid plus culture were the diagnostic criteria (1) .However in our experience. Fortunately, baby responded well without any significant complication. Fistula formation, facial nerve palsies, mediastinitis and extension to the auditory canal following acute suppurative parotitis are rare since the introduction of antimicrobial therapy[8].

CONCLUSION

Infection of the salivary gland should be strongly considered in cases of neonatal sepsis associated with facial swelling as suppurative parotitis could be easily missed without a care. early identification and isolation of organism and starting on appropriate antibiotics will improve survival rate and without any morbidity.

Bibliography

1. Spiegel R, Miron D, Sakran W, Horovitz Y. Acute neonatal suppurative parotitis: Case reports and review. Pediatr Infect Dis J 2004; 23:76-8.
2. Essam A Ismail, Tarek M Seoudi, Mohamad Al-Amir and Ahmad A Al-Esnawy Pediatrics International (2013) 55, 60-64
3. Beck S, Wojdyla D, Say L *et al*. The worldwide incidence of preterm birth: a systematic review of maternal mortality and morbidity. Bull. World Health Organ. 2010; 88: 31–8.
4. Chevalier J, Jadcherla SR. Parotid swelling in a premature neonate. Am. J. Perinatol. 2002; 19: 435–7
5. Leake D, Leake R. Neonatal suppurative parotitis. Pediatrics. 1970;46(2):202-7
6. Managoli S, Chaturvedi P. Suppurative parotitis in a neonate
7. Schwab J, Baroody F. Neonatal suppurative parotitis: a case report. Clin Pediatr (Phila). 2003; 42(6):565-6.
8. Mohyud-Din M, Haider S, Hameed A. Bilateral suppurative parotitis in a newborn. *J* Coll Physicians Surg Pak.2006; 16(4):301-2.
9. Todoroki Y, Tsukahara H, Kawatani M *et al*. Neonatal suppurative parotitis possibly associated with congenital cytomegalovirus infection and maternal methyldopa administration. Pediatr. Int. 2006; 48: 185–6
10. Brook I. Suppurative parotitis caused by anaerobic bacteria in newborns. Pediatr. Infect. Dis. J. 2002; 21: 81–2.
11. Fathalla B, Collins D, Ezhuthachan S. Acute suppurative parotitis: uncommon presentation in a premature infant. J. Perinatol. 2000; 1: 57–9.
12. Walter C, Noguera A, Gene A, Jimenez R, Fortuny C. Group B streptococcal late-onset disease presenting with parotitis. J. Paediatr. Child Health 2009; 45: 764–6.
13. Herrera Guerra AA, Osguthorpe RJ. Acute neonatal parotitis caused by streptococcus pyogenes: a case report. Clin. Pediatr. (Phila) 2010; 49: 499–501
14. Chevalier J, Jadcherla SR. Parotid swelling in a premature neonate. Am. J. Perinatol. 2002; 19: 435–7.Indian Pediatr. 2002; 39: 407–8.
15. Salaria M, Poddar B, Parmar V. Neonatal parotitis. Indian J. Pediatr. 2001; 68: 283

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How to cite this article:

Amith Kumar CH *et al*.2015, An Unusual Organism As A Cause of Acute Neonatal Suppurative Parotitis. *Int J Recent Sci Res.* 6(10), pp. 7111-7113.

International Journal of Recent Scientific Research

ISSN 0976-3031