

**ACUTE GROUP B STREPTOCOCCUS PAROTITIS IN NEONATE, RARE CASE  
REPORT FROM SAUDI ARABIA**

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**ABSTRACT**

Acute neonatal parotitis is a rare neonatal disease. To the best of our knowledge No previous case was reported from Saudi Arabia at this age group. the most common source of infection is ascending bacteria from the oral cavity. The most common presentation of neonatal parotitis are fever, swelling, and redness in the pre-auricular area. We are presenting the case history and examination with ultrasound finding of 25 days Saudi female neonate presented with history of fever, Irritability and Left sided periauricular swelling. she was diagnosed as acute left parotitis due to group B Streptococcus (GBS) with bacteremia and treated with intravenous antibiotics. High index of suspicion, early diagnosis and management, choosing appropriate antibiotics might save patient from late complication and decrease the need of surgical intervention.

**KEYWORDS:** Acute neonatal parotitis periauricular intervention.

**INTRODUCTION**

Acute neonatal parotitis is a rare neonatal disease. To the best of our knowledge No previous case was reported from Saudi Arabia at this age group. the most common source of infection is ascending bacteria from the oral cavity.<sup>(1)</sup> The most common presentation of neonatal parotitis are fever, swelling, and erythema in the pre-auricular area.<sup>(2)</sup> Here we present 25 days Saudi female neonate who presented with history of fever, Irritability and Left sided periauricular swelling. she was diagnosed as acute left parotitis due to group B Streptococcus (GBS) with bacteremia and treated with intravenous antibiotics.

**CASE REPORT**

a 25 days Saudi female neonate presented to pediatric department in alyamamah hospital with a one day history of fever, Irritability and Left sided periauricular swelling (Fig. 1).

She was born at 37 weeks via normal spontaneous vaginal delivery, birth weight 3100 g. No history of maternal urinary tract infection during pregnancy. No GBS screening was done. no maternal fever or prolonged rupture of membranes during labor. No previous baby with GBS. no maternal skin infection. baby was fine after birth and discharged with mother on second day. Postnatal history was normal. Parents were close relative. There was no coryza or conjunctivitis. No skin rash, vomiting or diarrhea. no

history of fall or trauma to face. she has 3 healthy sibling 2 brothers and one sister. she received BCG and hepatitis B vaccine after birth. on admission the baby was irritable, her weight 3.5 kg (25<sup>th</sup> percentile), height 47 cm (5<sup>th</sup> percentile), head circumference 36 cm (50<sup>th</sup> percentile). Rectal temperature 38.7C Pulse and Respiratory Rate were 150/m & 40/m respectively. a diffuse tender not fluctuated unilateral swelling in left parotid region were noticed. It was warm, tender. Pus was noted from the left Stenson's duct upon pressure applied to the parotid. Pus was sent for culture. Ear, nose, throat and mouth examination were normal. Head examination revealed normal fontanel size 1.5x1.7 cm with no bulging. Chest, cardiac and Abdominal examination were normal. Primitive reflexes were intact.

Investigation revealed White blood Cell (WBC) and Red blood cell (RBC) were  $17.93 \times 10^3/uL$  and  $3.74 \times 10^6/uL$  (Neutrophil 51.6%) respectively. Erythrocyte sedimentation rate (ESR) & C-reactive protein 38 mm/hour & negative respectively. Liver function tests were normal, renal profile, blood sugar, bone profile and electrolytes were normal. Metabolic screen was unremarkable. Results of Urine analysis & culture were normal. Left parotid gland was enlarged with small Reactive left deep cervical lymph node was observed in ultrasonography report (FIGURE2). blood and cerebrospinal fluid and pus from the gland were obtained for culture. Empiric therapy with Vancomycine and cefotaxime was initiated. After 7 days of therapy,

fever subside and the swelling regress remarkably. Cultures of blood and pus showed group B Streptococcus (GBS) sensitive to Vancomycine; cerebrospinal fluid

culture was negative. Patient was discharged in good condition after 10 days of intravenous antibiotics.



Figure 1 a and b: neonate with left parotid swelling

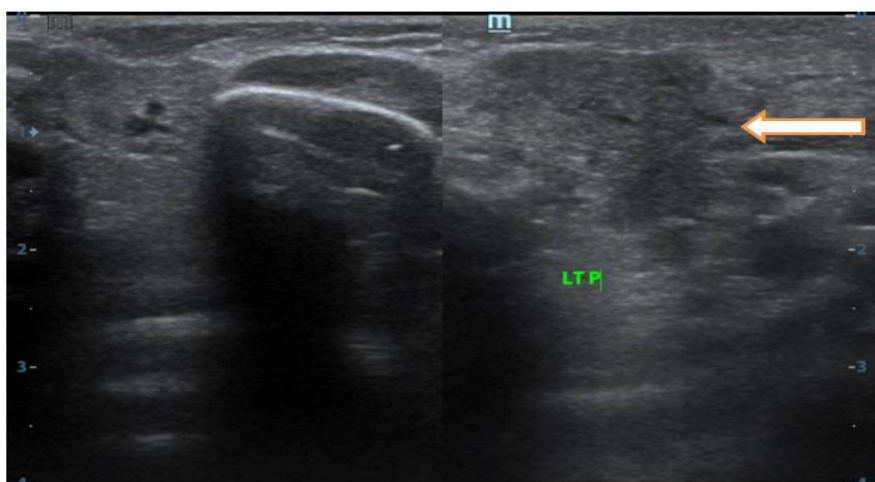


Figure 2: ultrasound picture of enlarged left parotid gland in compare to normal sized right parotid gland

## DISCUSSION

Acute neonatal parotitis is a rare neonatal disease. No previous case was reported in Saudi Arabia. Ascending bacteria from the oral cavity is the most common source of infection.<sup>(1)</sup> The most common presentation of neonatal parotitis is fever, swelling, and erythema in the pre-auricular area.<sup>(2)</sup> Our patient was febrile on admission; however fever was reported in fewer than half of the patients.<sup>(2)</sup> As in our case, most patients had peripheral WBC count more than 15000/mm.<sup>(3,2)</sup> Our patient ESR was 38 mm/h which was elevated in only 20% of the patients.<sup>(2)</sup> Excessive oral suctioning, nasogastric tube feeding, and maternal breast abscess are the possible risk factors.<sup>(3)</sup> Low birth weight, immunosuppression and oral trauma were reported as the risk factors for parotitis<sup>(4)</sup> all these risk factor were not found in our patient. *S. aureus* is the most common pathogen implicated in the neonatal parotitis. *Escherichia coli*, *Klebsiella pneumonia*, and *Pseudomonas aeruginosa* were also reported.<sup>(1)</sup> group B Streptococcus (GBS) was also reported as cause of acute neonatal parotitis.<sup>(9)</sup> most of the cases were unilateral As in our patient,<sup>(5)</sup> However, Bilateral

case was reported as well<sup>(10)</sup> Intravenous vancomycin and cefotaxime were used to treat our patient. Penicillinase-resistant penicillins or first-generation cephalosporin are the good initial choices to effectively control *S. aureus*, along with clindamycin or a similar medication to control possible anaerobic infections.<sup>(6)</sup>

Our patient responds well to Medical treatments which were sufficient in most of reported cases.<sup>(7)</sup> Complications such as facial palsy, mediastinitis, salivary fistula and extension to external ear are infrequent due prompt antibiotic therapy.<sup>(8)</sup> none of previous complication were occur in our patient We treated our patient with 10 days course of intravenous vancomycine plus cefotaxime. The shortest effective duration reported in treating neonatal parotitis due to *S. aureus* and in the absence of septicemia was 7 days.<sup>(1)</sup> The prognosis seems to be excellent. No deaths were reported in the patients studied after 1970.<sup>(4)</sup>

## IN CONCLUSION

Acute parotitis is rare neonatal entity and should be considered in neonate with periauricular swelling and

fever. High index of suspicion, early diagnosis and management, choosing appropriate antibiotics might save patient from late complication and decrease the need of surgical intervention.

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