

A RARE PRESENTATION OF STREPTOCOCCAL SEPSIS IN A CHILD

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ABSTRACT

A 7 year old child was admitted to the pediatric ward of Sree Balaji Medical College and Hospital with complaints of intermittent high grade fever associated with chills of 4 days duration, vomiting, abdominal pain and rashes of 2 days duration. On examination child was febrile, lethargic, had a coated tongue and hepatomegaly. Lab investigations showed leucopenia and thrombocytopenia. She was treated with intravenous fluids, Inj Ciprofloxacin, injection ondansetron and syp paracetamol. She developed bilateral pleural effusion. Her blood culture grew streptococcus pneumoniae highly sensitive to Piperacillin, Penicillin, Ofloxacin and Ciprofloxacin, Azithromycin, Amoxicillin. She improved with ciprofloxacin and the temperature settled in three days after starting the antibiotic.

KEY WORDS

Streptococcus, pleural effusion and thrombocytopenia

CASE PRESENTATION

A 7 year old child was admitted to the pediatric ward of Sree Balaji Medical College and Hospital with complaints of intermittent high grade fever associated with chills of 4 days duration, vomiting, abdominal pain and rashes of 2 days duration.

On examination child was febrile, lethargic, had a coated tongue and was not anemic, no icterus, heart rate was 108/mt, RR was 26/mt, CRT was less than 2 seconds, CVS - normal, RS - normal P/A Liver 4cm below RCM, CNS Normal.

Lab investigations showed a TC of 1620 cells/cumm, N62.6%, Lymphocytes 35%, Eosinophils – 0.7%, monocytes 1.6%, Basophils 0.1%, Hemoglobin 12.5 gm/dl, RBC count – 5.06millions/cumm, Hematocrit 38.5 and platelet count was 58,000. Dengue serology was negative. Renal function tests, Serum electrolytes and Liver function tests were normal. Urine routine analysis was normal.

She was treated with intravenous fluids, Inj Ciprofloxacin, injection ondansetron and syp paracetamol.

Her platelet count reduced to 22,000 after two days and she developed purpuric spots on her legs. Examination of the RS showed breath sounds bilaterally diminished in the infraaxillary, infrascapular and mammary regions. X ray chest showed bilateral pleural effusion.

She was transfused with 2 units of platelet concentrates. Her blood culture grew streptococcus pneumonia highly sensitive to Piperacillin, Penicillin, Ofloxacin and Ciprofloxacin, Azithromycin, Amoxicillin.

She improved with ciprofloxacin and the temperature settled in three days after starting the antibiotic. Repeat Xray after 2 days showed no fluid in the pleural space. On discharge she had no fever for 10 days, was tolerating oral feeds well, voiding urine adequately was conscious, well oriented, HR 89/MT, RR 24/MT,

RS – Bil NVBS, no added sounds, P/A – Liver 3cm below RCM.

DISCUSSION

Streptococcus pneumoniae or pneumococcus, is an encapsulated Gram-positive bacterium which is the major cause of bacteremia and upper respiratory infections (eg, otitis media and sinusitis) in children and a common cause of serious invasive infections. Occult bacteremia is defined as the presence of bacteria in the bloodstream of a febrile child who has no apparent focus of infection¹. Severe infections, predominantly meningitis, occur in fewer than 6% of pneumococcal occult bacteremia cases. Febrile seizures have been a presenting symptom in as many as 67% of patients with pneumococcal bacteremia. Potential underlying causes of pneumococcal bacteremia that should be apparent on physical examination include meningitis, septicemia, osteomyelitis, septic arthritis, cellulitis, pneumonia. Ceftriaxone, a third-generation cephalosporin with an extended half-life, has provided the potential for managing many serious pediatric infections with a single daily injection on an outpatient basis. General dosing recommendations for ceftriaxone are 50-75 mg/kg/day, in 1 or 2 doses. But in our case the

patient responded to ciprofloxacin. In 2000, a heptavalent pneumococcal conjugate vaccine (PNCV7) was approved for routine administration to young infants. This vaccine covered *S pneumoniae* types 4, 6B, 9V, 14, 18C, 19F, and 23F. The reason for publishing this case report is that streptococcal septicemia can also clinically mimic Dengue infection. In this case we strongly suspected Dengue fever but as Dengue serology was negative we thought of an alternate diagnosis.

REFERENCES

1. Recurrent streptococcus pneumonia sepsis in children with sickle cell Suradej Hongeng MD, Judith A Williams MD, Sylvia Harris RN, Sara W Day RN, Winfred C Wang MD. The Journal of Pediatrics volume 130 issues 5, Pages 814-816, May 1997.
2. A pediatric case of pneumococcal meningitis due to *Streptococcus pneumoniae* serotype 35F Kara SS¹, Polat M, Tapisiz A, Nar Otgun S, Tezer H.
3. Early trends for invasive pneumococcal infections in children after the introduction of the 13-valent pneumococcal conjugate vaccine. Kaplan SL¹, Barson WJ, Lin PL, Romero JR, Bradley JS, Tan TQ, Hoffman JA, Givner LB, Mason EO Jr.
4. Acute pericarditis is caused by *Streptococcus pneumoniae* in young infants and children: Three case reports and a literature review International journal of infectious diseases Volume 14 issue 2 Pages e175-e178 February 2010.



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