

Enterococcal Meningitis with Bilateral Subdural Effusion in a Healthy Young Infant

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Abstract

Enterococcal infections though seen in neonates are rarely in healthy pediatric population. Patients with head injury, neurosurgery and enteric infections are predisposed for above infections. It is an unusual agent for meningitis in a healthy child. We report one such experience in a two month old healthy female infant who presented acutely with fever and cough of one day duration. She was admitted as acute respiratory infection but developed status epilepticus. Post stabilization a Lumbar puncture done showed features of bacterial meningitis while MRI brain showed bilateral subdural effusion. CSF culture grew enterococci sensitive to vancomycin, amikacin and linezolid. She was given appropriate antibiotics for four weeks. She did not require any surgery and recovered completely.

Keywords: Enterococci; Meningitis; Subdural effusion; Healthy infant

Introduction

Enterococci are gram positive cocci found normally in the bowel flora and also ubiquitously. Common infections in pediatric population are urinary tract infection and endocarditis. Meningitis and respiratory infections are extremely rare [1]. Stevenson and colleagues found only four cases of enterococcal meningitis among 493 episodes of bacterial meningitis in adults [2]. Another study by Koorevaar et al. [3] of 450 episodes of bacterial meningitis in children over a nine year period (1981-1989), either enterococci or streptococcus viridans together accounted for only nine cases. All these patients had predisposing factors.

We report one case of enterococcal meningitis with bilateral subdural effusion in a healthy young female infant which responded to conservative treatment.

Case Report

Two month old female infant, born full term normal delivery with a birth weight of 3 Kg on exclusive breast feeds, presented with history of fever, cough and poor feeding of one day duration. Clinically she

was sick looking and febrile. Chest examination and other systems examination were unremarkable. She was admitted with a provisional diagnosis of Acute respiratory infection possibly bacterial in etiology. She was put on Intravenous cephalosporin and amikacin. At six hours of admission she developed tonic clonic seizures which was managed with intravenous benzodiazepine followed by a loading dose of phenytoin.

Investigations: Hemoglobin 8.8 gm/dl, Total leucocyte count 9700/ cubic mm, differential count Polymorphs 32 lymphocytes 64 Eosinophils 2, C Reactive protein negative. Biochemical parameters were within normal limits. CSF analysis: Appearance turbid, total cells 400 (RBC 50 and WBC 350 predominant polymorphs), glucose 22 mg/dl (blood glucose 90 mg/dl) proteins 270 mg/dl globulins raised, CSF culture grew enterococci sensitive to vancomycin, amikacin and linezolid. MRI brain (Figure 1) showed meningitis with bilateral subdural effusion and parenchymal changes in form of T2 hyperintensities in basal ganglia. She was given vancomycin (60 mg/kg/day) and amikacin (15 mg/kg/day) for four weeks. Renal function tests were monitored regularly. She has been on follow up developing normally. Repeat neuroimaging has shown complete resolution of the lesion.

Discussion

Enterococcal meningitis beyond neonatal period in a healthy infant is extreme rarity. Hebbar et al. [4] had reported a similar case in a 7 month infant with right side subdural effusion. Apart from ours latter is the only case report with enterococcal subdural effusion in a healthy infant. With rising drug resistance, of enterococcus faecalis and faecium, data on effective treatment regimen for enterococci is still lacking however combination therapy with what we gave is

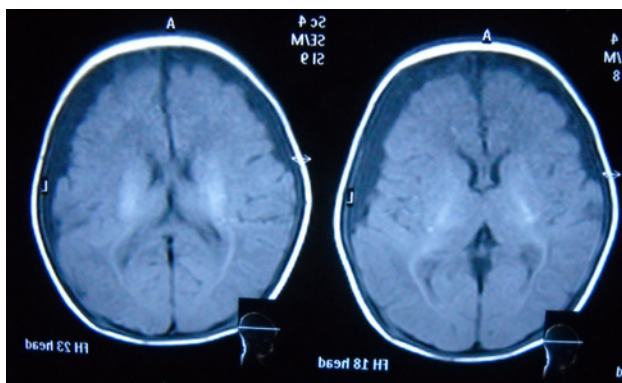


Figure 1: MRI brain showing meningitis with bilateral subdural effusion with T2 hyperintensities in basal ganglia.

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recommended [5]. This report highlights the rare combination of respiratory symptomatology with bilateral subdural effusion caused by enterococcus in a healthy infant.

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