Brevundimonas Septicemia: A Rare Infection with Rare Presentation

Brevundimonas is a rare bacterium, predominantly causing nosocomial bacteremia in immunocompromised hosts [1]. *Brevundimonas vesicularis* and *B. diminuta* are the two species isolated in human infections [1] while third species *B. nasdae* has not been isolated from human infection so far [2]. Brevundimonas bacteremia among children is rare [2]. We report a case of Brevundimonas septicemia causing bilateral pneumothorax and empyema in an infant.

Eight-month-old infant presented with fever, rapid breathing and poor oral intake for 5 days. At presentation, infant was in shock and respiratory distress. Chest auscultation revealed decreased air entry with hyper-resonant percussion note on left side; Chest *X*-ray showed bilateral pneumothorax (tension pneumothorax on left side); chest tube was inserted in left 7th intercostal space. Collapsed lung expanded and pus was drained out. Empirically, a combination of ceftriaxone, amikacin and vancomycin was started. Blood and pus cultures isolated *Brevundimonas vescularis*, which was sensitive to quinolones (levofloxacin), cefoperazone, piperacillin-tazobactum, and amikacin but resistant to ceftazidime and amoxicillin-clavulanic acid. Cefoperazone and levofloxacin were added. Chest tube was removed after 5 days and after 2 weeks of treatment, patient was discharged.

Incidence of brevundimonas infection in immunocompetent host is relatively low [1,3]. Our patient had community acquired infection while most of the pediatric cases reported so far are of nosocomial infections. Previous reported infections by this organism in children are septicemia, pneumonia, meningitis, septic arthritis, and urinary tract infection [1-4]. In the present case, brevundimonas bacteremia led to bilateral air leak with empyema. Carbapenem group of antibiotics including imipenem, meropenem and doripenem are reported to be effective for these infections [1,2]. The sensitivity pattern for quinolones is quite variable.

We conclude that community-acquired brevundimonas septicemia can present as complicated pneumonia with air leak and empyema.

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Volume Guarantee Ventilation in Neonates and Trouble Shooting

The recent report in Indian Pediatrics [1] brings to focus the common problems while using volume guarantee (VG) ventilation in neonates and their trouble shooting. I wish to add the following problems to the list:

1. In lung conditions, where infants require aggressive ventilation (e.g. severe meconium aspiration syndrome or PPHN), it may appear that the VG method is not effective with constant low tidal volume (VT) alarms. This is frequently due to a reluctance to set the back-up pressure high enough to allow the ventilator to reach target VT. In this case, the options are:

(*a*) Increase the back-up pressures high enough to allow the target VT to be reached. This is based on the premise that volutrauma – and not barotrauma – causes lung damage [2]. Therefore if the volume is