

15<sup>th</sup> International Congress on **American Pathology and Oncology Research**  
&  
International Conference on **Microbial Genetics and Molecular Microbiology**  
December 03-04, 2018 | Chicago, USA

## Prevalence and rapid diagnosis of acute bacterial meningitis in children in Bangladesh

Mohammad Zakerin Abedin  
University of Dhaka, Bangladesh

An attempt was made to analyze the cerebrospinal fluid (CSF) profile and to isolate and identify aetiological agents from the specimens from children with suspected acute bacterial meningitis. Among total 79 samples, 65 (82.3%) were crystal clear, 9 (11.4%) were moderately turbid, 2 (2.5%) highly turbid and remaining 3 (3.8%) were high blood mixed. The total cell (leucocyte) count of the CSF was proportionate to the turbidity. In case of crystal clear CSF's, total leucocyte counts were normally ranging from 0 to 700 per mm<sup>3</sup> with predominant lymphocytes. Moderately turbid fluid showed 200 to 2,000 cells per mm<sup>3</sup> and highly turbid fluid and highly blood mixed showed more than 40,000 cells per mm<sup>3</sup>. In the later cases, differential counts demonstrated polymorphonuclear predominancy. In 65 cases whose CSF were crystal clear, total protein and sugar concentration ranged from 20 to 400mg/dl and 20 to 180mg/dl respectively. In turbid CSF's, total protein and sugar concentration varied from 70 to 500mg/dl and 10 to 200mg/dl respectively, while in the highly turbid CSF's, they ranged from 50 to 800mg/dl and 40 to 140mg/dl respectively. Among total 79 CSF samples, Pandey's tests were positive for 16.9% and negative for 9.2% in cases of the crystal clear. In case of moderately turbid and highly turbid CSF's, Pandey's test was positive for 88.9% and 100% cases respective. C-Reactive protein (CRP) were positive (>12mg/dl) for 3 (3.79%) samples. A total of 79 CSF was culture. There were 5 culture positive cases, which included *Escherichia coli* (20%), *Haemophilus influenzae* (20%) and *Streptococcus pneumoniae* (60%). Using the latex agglutination test, the detection rate was higher than that of culture. Most of meningitis positive cases showed an increased total cell counts as well as proteins concentration and decreased serum sugar concentrations. High resistant rate to cotrimoxazole was observed among the invasive isolates. On the other hand, none of these invasive strains showed resistant to ceftriaxone.

zakerin.du2016@gmail.com

### Notes: