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Original Article

Multi Drug Resistant Tuberculous Meningitis in Pediatric Age Group

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Abstract:

Objective: Past decade has seen increase in cases of tuberculous meningitis (TBM) and multidrug resistance in such cases. The mortality rate for a mismanaged TBM is very high which increases manifold in presence of associated complicating factors. The present study was thus planned to evaluate the prevalence of MDR-TBM and look for associated complicating factors and carry out drug sensitivity pattern in all culture positive isolates.

Methods: One hundred cerebro-spinal fluid (CSF) samples from children clinically suspected of having TBM were collected and processed for detection of *Mycobacterium tuberculosis* by conventional methods like Ziehl-Neelsen (ZN) staining, Lowenstein- Jensen (LJ) culture and newer method like BACTEC 460 TB culture. Antimicrobial susceptibility was performed on all culture positive isolates by BACTEC 460 TB system.

Findings: Twenty two cases could be diagnosed as definitive TBM based on BACTEC culture. Of these 22 cases, six cases (27.3%) were positive by ZN staining and/or LJ culture. Of all isolates tested for drug sensitivity 18 were sensitive to all four drugs whereas 4 isolates were resistant to more than one drug.

Conclusion: Since the prevalence of MDR-TBM is very high we conclude that all CSF samples should be subjected to sensitivity testing to diagnose it at an early time and determine its sensitivity pattern in view of its very high mortality.

Keywords:

Cerebrospinal fluid , Multidrug resistance drug , Tuberculous meningitis , BACTEC , Children

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