

ABSTRACT

The present study is concerned with the bacterial profile and antimicrobial susceptibility in childhood pyogenic meningitis. Two hundred and twenty six meningitis patients with culture positive bacterial meningitis were analyzed in the Children's Hospital Lahore during the period of October 2007 to September 2008. There were 151 males and 75 females with different age group i.e. less than month, one month to one year, 1-5 years, 5-10 years and 10-15 years were identified belonging to eight different districts of the Punjab. The clinical manifestations of all the patients were recorded at the time of admission. Fever, seizures and vomiting were the most common symptoms in the patients while other symptoms like altered consciousness, neck rigidity, bulging fontanelle, headache and irritability were also noted.

Cerebrospinal fluid (CSF) was examined for physiological, biochemical and cytological analysis. Twenty two different bacteria responsible for the bacterial meningitis were identified. The most frequently isolated bacteria were *Escherichia coli* (18.6%), *Staphylococcus aureus* (15.9%), *Klebsiella pneumonia* (15.0%), *Pseudomonas aeruginosa* (14.6%), *Acinetobacter baumannii* (8.8%) and *Coagulase-ve Staphylococci* (5.3%). Some other bacteria identified in the present study were *Streptococcus pneumonia* (6.2%), *Haemophilus influenzae* (0.9%), and *Neisseria meningitides* (1.8%), *Streptococcus pyogenes* (1.8%), *Non-haemolytic Streptococci* (0.4%), *Enterobacter spp.* (2.7%), *Citrobacter spp.*

(1.8%), *Xanthomonas maltophilia* (0.4%), *Serratia marcescens* (0.9%), *Aeromonas spp.* (0.9%), *Alkaligenes xylosoxidans* (0.4%), *Burkholderia cepacia* (0.4%), *Listeria monocytogenes* (0.4%), *Flavimonas oryzihabitans* (0.4%), *Sphingomonas paucimobilis* (0.4%) and *Pseudomonas fluorescens* (1.8%).

Antimicrobial sensitivity pattern of various antibiotics was studied *in vitro* by Kirby-Bauer disc diffusion method. Bacteria showed highest sensitivity to Vancomycin, Meropenem, Cefepime and Chloramphenicol while few antibiotics like Oxacillin, Penicillin, Ampicillin, Amoxicillin+Clavulanate and Ceftriaxone gave medium results. Antimicrobial resistance of bacteria was seen mostly against Cefotaxime, Ceftazidime and Cefuroxime.