SUMMARY

Cerebro spinal fluid was collected by lumbar puncture from 41 child with signs and symptoms of meningeal irritation at different age groups. The paitents were admitted to Benha Fever Hospital and university Fever Hospital during September 1983 to February 1984 .

The collected sample was examined at first by Gram stain and concentrated by centrifugation. The supernatent fluid used for chemical analysis while the deposite inoculated on Mueller Hinton and blood agar media.

Colonies appeared on Mueller Hinton were tested by oxidase reagent and confirm diagnosis by sugar fermentation reactions and serogrouping with Nfisseria meningitidis polyvalent and monovalent antisera. Other colonies were examined and identified by motility test IMViC test , bile solubility test and oxidase test .

The etiology was identified in 25 cases(61 %) from 41 collected samples. 16 specimens were Neisseria meningitidis by being Gram negative diplococi and oxidase positive, 4 cases of Haemophilus influenza were isolated, they were Gram negative cocco - bacilli,

oxidase negative , indol negative and non motile. The other organisms isolated were 3 cases of Streptococcus pneumoniae being Gram positive diplococci and showed positive bile solubility test , 2 cases of pseudomonas was known from their colonies on the culture they were oxidase positive , motile and indole negative .

The present study revealed that males were more exposed to infection than females(55 % to 45 %) . Meningococcal meningitis was the most frequent form of meningitis in children . It formed about 64 % of diagnosed specimens. The highest incidence of infection occured between 5-9 years old. All the isolated strains of Neisseria were belong to group A serotype .

Haemophilus infneunzae form about 16 % from the diagnosed cases, it occured more in patients at age group below 5 years old. On the other hand infection with Streptococcal pneumoniae form 12 % of cases and occured in children below 9 years old. The last organisms which isolated, but not common, were Pseudomonas, only 2 cases were reported .

All the isolated organisms were tested for drug sensitivity test to choose the most effective and suitable drug for the treatement . It was found

that all the isolated strains of Neisseria meningitidies were sensitive to Penicillin Garamycin and Ampiclox while Topramycine had high degree of effect against Gram negative bacilli (Haemophilus influenzae and Pseudomonas). Cephalotine had negligable effect on the most organisms except Streptococcus pneumoniae.