SUMMARY AND CONCLUSION

This study was conducted on 20 patients with acute bacterial meningitis (mean age 7.3±4.76 years), 20 patients with aseptic meningitis (mean age 9.25±3.17 years) and 10 healthy control children (mean age 9.4±3.89 years).

Complete clinical examination was performed. CSF was obtained by lumbar puncture within the first 24 hrs of onset of the symptoms and subjected to physical, chemical, cytological and bacteriological examinations, blood examination for total and differential white cell count. Also IL-6, IL-8 levels were estimated in CSF and serum by ELISA.

The CSF IL-6, IL-8 in patients with bacterial meningitis were significantly higher than those with aseptic meningitis and the control groups. CSF IL-6, IL-8 in patients with aseptic meningitis were also significantly higher than those in the control group. These results suggest that IL-6, IL-8 are important mediators in the meningeal inflammatory process in patients with meningitis. The levels of these mediators are good indicators for the extent of the meningeal inflammation.

The positive correlation found between IL-6, IL-8 CSF titers and indices such as the percentage of polymorphonuclear cells in CSF both in purulent bacterial meningitis and aseptic meningitis indicates a role for IL-6, IL-8 in the process of meningeal inflammation in these forms of

meningitis. These results validated the potential of measuring IL-6, IL-8 in CSF samples for the purpose of providing additional information on routine laboratory test results.