



CHAPTER 6

SUMMARY AND CONCLUSION

Isoniazid and pyrazinamide crossed the blood brain barrier very readily and appreciable levels were achieved in the cerebrospinal fluid of patients with tuberculous meningitis even though the drugs were given more than one month. The level of rifampin in CSF was above the minimum inhibitory concentration (MIC) against Mycobacterium tuberculosis in the first two weeks of treatment but after that the level was fluctuated from the MIC. The penetration of streptomycin into CSF was very poor neither at the beginning nor continuation of treatment. The average percent penetration into the cerebrospinal fluid of isoniazid, pyrazinamide, rifampin and streptomycin were about 89,91,5 and 20, respectively. The CSF concentration of pyrazinamide may be predicted from simultaneous serum concentration by using linear regression while the other drugs cannot.

There was no effect of concomitant corticosteroids upon the levels of isoniazid, pyrazinamide, rifampin and streptomycin in the cerebrospinal fluid. Similar results were occurred with the CSF/serum ratios of these four drugs.

Of the 16 patients, none of the patients died during hospitalization. Six patients (5 in group I and 1 in group II) recovered from the disease without any neurological defects. Four patients had neurological deficits as follows : in group I, one had generalized seizure and another

had ptosis of eye. One patient was discharged with improved clinical signs and symptoms but was readmitted later on due to the non-compliance of the patient and finally was dead. The other five patients (3 in group I and 2 in group II) also survived but were missed from determination whether they had the neurological defect or not.