Purpose
In tuberculous meningitis (TBM) blood flow may be altered due to associated vasculitis, hydrocephalus, and raised intracranial pressure. Electroencephalography and single photon emission computed tomography (SPECT) provide information about electrical activity and regional cerebral blood flow respectively. This study aims at the correlation of EEG and SPECT changes in patients with TBM.

Materials & Methods
Sixteen patients with TBM whose ages ranged between 5 and 62 years and 3 of whom were females were subjected to clinical, radiologic (CT and/or MR imaging), EEG and SPECT studies using 99 mTc ethyl cystine dimer (ECD). Ten patients were in stage III and 3 each in stage II and stage I meningitis. Cranial CT scan was carried out in 15 and MR imaging in 4 patients. Hydrocephalus was present in 9, infarction in 7, and tuberculoma in 5 patients.

Results
SPECT studies were abnormal in all except 2 patients revealing basal ganglionic hypoperfusion in 14, and focal cortical hypoperfusion in 9 patients. The EEG was abnormal in 11 patients which included delta slowing in 5, theta slowing in 6, frontal intermittent rhythmic delta activity (FIRDA) in 3 and epileptiform discharges in 2 patients. All the patients with abnormal EEG had abnormal SPECT study except 1. In 4 patients, EEG was normal although there was subcortical hypoperfusion on SPECT. Inspite of high frequency of focal cortical hypoperfusion (9 patients), EEG revealed focal abnormality in 3 patients only.

Conclusion
It can be concluded that SPECT reveals more frequent abnormality compared to EEG and CT scan. Cortical hypoperfusion with or without basal ganglia hypoperfusion was associated FIRDA and diffuse delta showing on EEG.

References