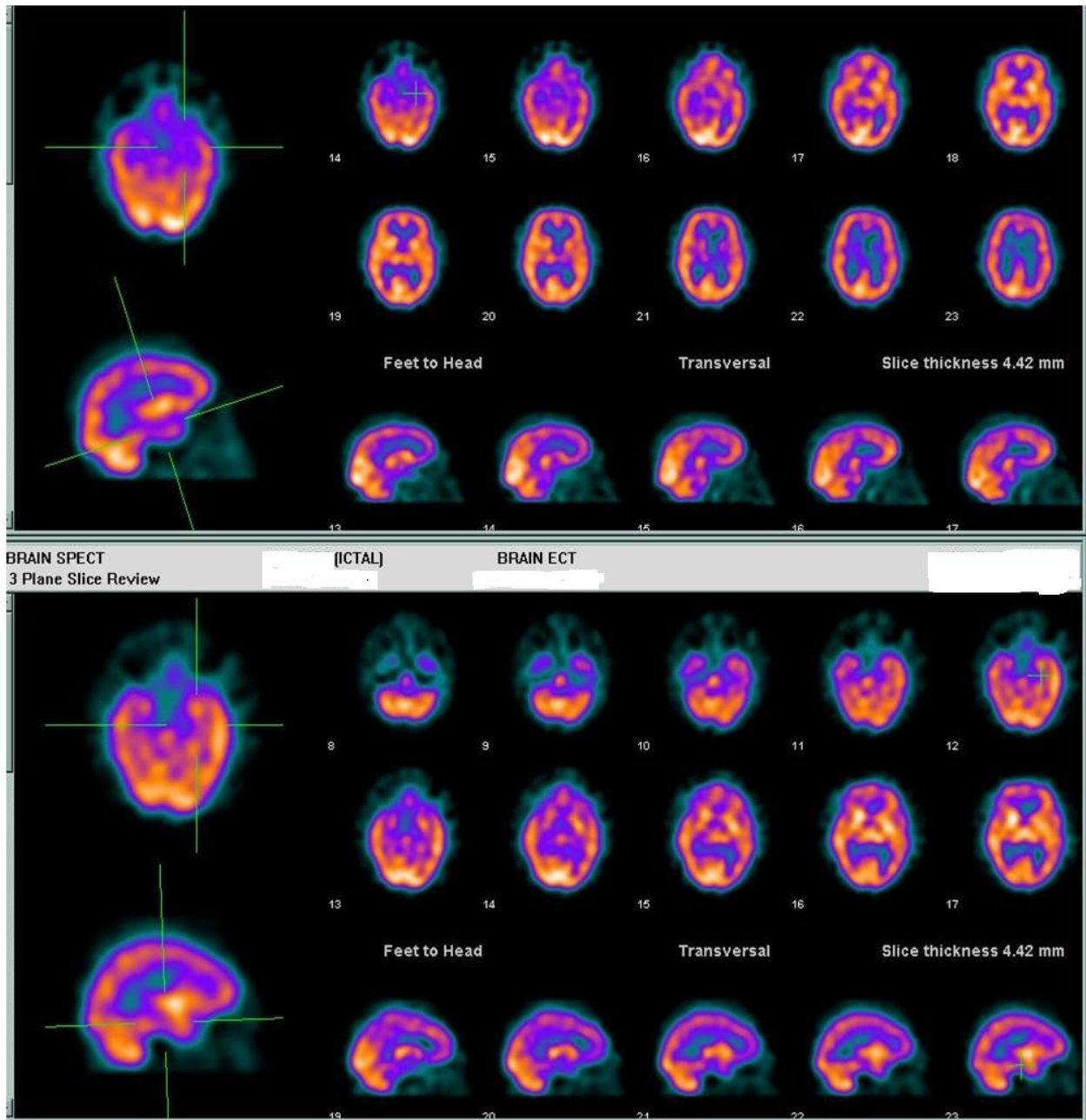


## BRAIN SPECT



### Clinical indication

$^{99m}\text{Tc}$  ECD brain SPECT done in a case of intractable epilepsy.

### Method

Both ictal and interictal images were acquired after 30 minutes of i.v injection of 20mCi radiotracer. Interictal injection was done in the dept. of Nuclear Medicine while ictal injection was done in the neurology ward under video EEG monitoring.

### **Findings**

Interictal SPECT images reveal decreased tracer uptake in the left temporal lobe involving mesial and anterior part. Rest of the images reveal no obvious area of decreased uptake.

Ictal SPECT images reveal increased tracer uptake to the left temporal lobe involving mesial and anterior part compared to the interictal images. Increased uptake is also noted in the region of bilateral basal ganglia (left>right)

Rest of the images show physiological tracer distribution.

### **Impression**

Study findings are suggestive of hypoperfusion to the left anterior and mesial temporal cortex on interictal brain SPECT that shows hyperperfusion on ictal brain SPECT. Increased uptake in the region of bilateral basal ganglia likely reflects the pathway of spread of seizure focus.

Findings are likely due to primary focus of differential perfusion (epileptogenic zone) in the left temporal lobe.