

S-N-2

Ictal cerebral Single Photon Emission Computerized Tomography (SPECT) scan is a sensitive and safe investigation for seizure localization

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In 1997, we reported the first systemic review of interictal cerebral SPECT scan in Hong Kong. Interictal cerebral SPECT scan can detect perfusion defect, and regional cerebral blood flow (rCBF) defect was found in 71% (15/21) of the patients with intractable temporal lobe epilepsy. Here we extended our study of rCBF in intractable epilepsy by ictal cerebral SPECT scan. We aimed to inject the radiopharmaceutical compound during a seizure under the monitoring of video-EEG telemetry. Area of hyperperfusion will reflect an increased metabolic demand over the epileptogenic zone. Owing to the limited half-life of the radioisotope, injection has to be given within a 3-hour time window. To date, six attempts of ictal SPECT studies were arranged for five patients. Time of injection ranged from 10 to 85 seconds after the onset of the seizure. The sensitivity to detect abnormal hyperperfusion defect is 100%. Furthermore, all patients with normal interictal SPECT scan had a hyperperfusion area in the ictal studies. No complication was seen. Thus, ictal SPECT study is a sensitive and safe investigation for localization of the epileptogenic zone.

S-N-3

CLINICAL AND LABORATORY FEATURES OF LOCAL PATIENTS WITH CHRONIC INFLAMMATORY DEMYELINATING POLYNEUROPATHY (CIDP)

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CIDP is a progressive or relapsing disorder of the peripheral nervous system with immunological pathogenetic mechanisms. Various immunosuppressive and immunomodulating therapies are proven beneficial especially when instituted early. From July 1997 to June 1999, four patients are diagnosed to have CIDP, all fulfilled the diagnostic criteria of Cornblath et al. All four patients are male and ages range from 25 to 63, one patient had chronic renal failure of uncertain etiology and another one had T cell lymphoma treated with chemotherapy one year before onset of symptoms. All patients had sensory symptoms and symmetrical lower limb weakness with milder upper limb involvement. Weakness progressed rapidly in two patients leading to muscle wasting due to secondary axonal loss. All patients had raised CSF protein ranging 0.71 to 1.03g/L but CSF oligoclonal band was negative in all patients. Electrophysiologically, lower limb F-waves are abnormal in all patients, being the most sensitive parameter. Except one patient who had mild symptoms which improved spontaneously, the other three patients respond satisfactorily to plasmapheresis followed by systemic corticosteroid. In conclusion, local CIDP patients show satisfactory response to plasmapheresis and systemic corticosteroid even when secondary distal axonal degeneration have developed and CSF oligoclonal band tends to be negative; early diagnosis and vigorous treatment are suggested.