



Title	Clinical characteristics of viral infection of central nervous system in Queen Mary Hospital
Author(s)	Fong, GCY; Cheung, RTF; Chang, CM; Yu, YL
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ELECTROCLINICAL CHARACTERISTICS AND NEUROIMAGING FINDINGS IN 31 PATIENTS WITH TEMPORAL LOBE EPILEPSY. *Gardian CY FONG, KY FONG, SL HO.* Division of Neurology, University Department of Medicine, Queen Mary Hospital.

Background: The clinical characteristics and ictal semiology of patients suffering from temporal lobe epilepsy have been well established in Caucasians but hitherto not been reported in Chinese patients.

Methods: Fifty-three patients with intractable complex partial seizures were recruited between 1993 and 1996 for prolonged video-EEG recording. According to their electro-clinical manifestations, seizures diagnostic of temporal lobe epilepsy were analysed. Neuroimaging studies including high resolution magnetic resonance imaging (MRI) and Single Photon Emission Computerised Tomography (SPECT) scan were also performed to aid localisation of the epileptic focus.

Results: Temporal lobe epilepsy was diagnosed in 31 patients. Of those 26 patients (84%) with motor manifestation, 19 (61%) of them showed lateralising signs: head and neck version (n=15, 48%), conjugate eye deviation (n=4, 13%) or dystonic posturing of limbs (n=13, 41%). Attacks with motionless stare were documented in the rest of 5 (16%) patients. Ictal automatisms were identified in 22 (71%) patients which consisted of oro-alimentary movements (n=11, 36%), bed making (n=8, 25%), exploratory behaviour (n=6, 19%) and repetitive motor activities e.g. tapping (n=13, 42%). Speech disturbance was present in 30 patients (96%) which include speech arrest (n=12, 38%), dysarthria (n=5, 16%), cry (n=7, 22.5%), coherent speech (n=2, 6%) or nonsense vocalisation (n=15, 48%). SPECT scan was performed in 21 patients which revealed interictal perfusion defect in 71% of patients. MRI scans were abnormal in 18 patients with lesions comprising hippocampal sclerosis (n=11, 61%), dysembryoplastic neuroepithelial tumour (n=2, 11%), temporal lobe atrophy (n= 1, 5.5%), oligodendroglioma (n=2, 11%) and benign temporal cyst (n=2, 11%). MRI and SPECT results were concordant in 72% of patients.

CLINICAL CHARACTERISTICS OF VIRAL INFECTION OF CENTRAL NERVOUS SYSTEM IN QUEEN MARY HOSPITAL. *Gardian CY FONG, Raymond TF CHEUNG, CM CHANG*, YL YU.* Department of Medicine, Queen Mary Hospital, and *Department of Medicine, Ruttonjee Hospital, Hong Kong.

Viral infection of the central nervous system (CNS) is an uncommon disorder with significant mortality and morbidity. Prospective collection of information on the clinical, radiological, and laboratory features of viral CNS infection is useful in guiding our management and designing further studies. All patients admitted to Queen Mary Hospital with viral CNS infection over an one-year period were studied prospectively. Blood tests, CSF studies, EEG, and CT or MRI of the head were performed on presentation and repeated on around day 14. Acyclovir was empirically given for 10 days at 30 mg/kg/day. Complications were recorded and treated accordingly. Fifteen patients (aged 16-78) were studied in the period with no sex preference (M=8, F=7): 12 meningoencephalitis, 2 meningitis, and 1 transverse myelitis. One patient with chronic renal failure and another with non-Hodgkin's lymphoma had preceding cutaneous herpes zoster. Flu-like prodrome was reported in 53% of cases (8 out of 15). Headache (8 out of 15), vomiting (2 out of 13), altered sensorium (9 out of 15), convulsions (8 out of 15), and focal neurological features (3 out of 15) were the presenting complaints. Photophobia was not reported. About half of cases (8 out of 13) had fever, and 50% of patients (6 out of 12) had neck rigidity. Glasgow Coma Score was full in 50% of patients (6 out of 12), and only 16% of patients (2 out of 12) scored less than or equal to 8 on presentation. Single seizures (3 out of 13), recurrent seizures (4 out of 13), status epilepticus (1 out of 13), and SIADH (2 out of 12) were noted. Peripheral blood leucocytosis was often found (9 out of 13), whereas lymphocytosis was rare (1 out of 13). In contrast, CSF lymphocytosis was present in 71% of patients (10 out of 14) on presentation. CSF protein was mildly elevated in 71% of patients (10 out of 14), and CSF glucose was slightly reduced in 38% of patients (5 out of 13). Viral culture of serum, CSF, nasal swab, throat swab and stool, viral culture, viral titer, HSV PCR, herpetic indices, and other microbiological tests failed to reveal the causative organism. Cerebral edema on CT of the head was seen in 53% of patient (7 out of 13) and this was correlated with high CSF pressure. Unilateral temporal lobe hyperintensity signal on T2WI MRI of the brain was noted in 20% of patient (1 out of 5). Focal (16%, 2 out of 12) or generalized (75%, 9 out of 12) slowing of EEG activities were detected in 91% (11 out of 12) of patients, and one subject had periodic complexes. Anticonvulsants were given to all patients with seizures. Three patients needed more than one anticonvulsants. Only one patient died. Our results suggested that abnormalities in EEG and CSF are the two most commonly noted features in viral CNS infection.