psychosis, and personality change, however, when the uncommon comorbidities present, excessive use of steroid or other diagnosis should be considered. On the other hand, APS carries no specific direct psychiatry comorbidity in the literature, while its associated migraine and repeated miscarriage have psychiatric repercussions.

Forty milligram of prednisolone daily equivalent or above has been known to increase the risk of steroid induced psychosis, and those with prior history, damaged blood–brain barrier, and hypoalbuminemia can be at risk. In our patient, although lithium and olanzapine were choices for prophylaxis, relapsed manic episodes during the steroid treatment alarms the physician to take precautions when examining and treating this population.

154

Connective tissue disease related CNS vasculitis, two case reports

Cheng-Ying Hsieh
Chung Shan Medical University hospital, Neurology

We reported two cases with suspected connective tissue disease related CNS vasculitis. One is systemic lupus erythematosus related multiple white matter lesions suspected hemorrhage, infarction and vasculitis and the other is Sjögren's syndrome related brainstem lesions suspected vasculitis. We discussed the predisposing factors, differential diagnosis and management issues of these cases.

155

Rapid detection of botulinum toxins using silicon nanobiosensors

B.-S. Yip, C. W. Chen, Y. B. Chiu
National Taiwan University Hospital, Hsinchu Branch, Department of Neurology

Botulinum neural toxin (BoNT) is a natural protein produced by the bacterium Clostridium botulinum and related species. It is the most lethal toxin known to human. The BoNT binds to the presynaptic nerve end and results in blocking of the release of acetylcholine. This process is irreversible and causes synapse permanent damage. Early diagnosis can halt the disease progression and shorten the duration of respiratory failure in severe cases of botulism. In this study, we integrated a disposable sensing chip (extended gate) featuring BoNT antibody (Ab) modification and the gate-all-around (GAA) silicon nanowire field-effect transistors (SiNW-FETs) for rapid detection of detect type A BoNTs. With design and simulation, the surface potential change resulted from specific binding between Ab and BoNT on sensing chip (extended gate) can be effectively coupled to the gate of silicon nanowire field-effect transistor so that rapid and low concentration detection can be fulfilled. Real-time pH detections and biotin-streptavidin binding were demonstrated to justify the capability of the proposed system. Then, a rapid BoNT detection was performed in real-time. The limit of detection (LOD) down to ~66 fM (~1 pg/mL) was achieved within 20 minutes. Compared to other detection methods, the silicon nanobiosensor presents the best in assay time with very low BoNTs concentration.

156

A case of chronic pachymeningitis manifested as progressive cerebellar ataxia

蔡銘駿，呂潔旻
Department of Neurology, Tainan Municipal An-Nan Hospital, Tainan, Taiwan; Department of Neurology, China Medical University Hospital, Taichung, Taiwan; School of Medicine, China Medical University, Taichung, Taiwan

Objective: To represent a case of chronic pachymenigitis manifested as progressive cerebellar ataxia.

Background: Pachymeningitis is a rare disease which can be revealed by magnetic resonance imaging (MRI) to be a thickening of the intracranial dura mater, while associated with an infectious, malignant, or rheumatic systematic disease. Clinical symptoms of pachymeningitis varied according to cranial nerves involved. There were rare reports associated with cerebellar ataxia. We report a case of pachymeningtis manifested as pure progressive cerebellar ataxia without other cranial nerves involvement.

Case Report: A case 34 year-old, female, whose occupation is a dancer, presented as slow progressive bilateral hand clumsiness in fine task with tremor for 2-3 years. There was sometimes difficulty for keeping balance while dancing. No limb weakness neither muscle wasting was associated. There were also no numbness or sensory loss on distal limbs found. No drinking or smoking history and no family history with ataxia are traced. The main findings of neurologic examination revealed mild hypotonia on four limbs, bilateral intention tremor on finger-nose-finger test, impairment in finger tapping test dominantly on left hand, and tilt to either side while performing tandem gait. Nerve conduction study, somatosensory evoked potential and motor evoked potential didn't show significant abnormal findings. Magnetic resonance imaging with enhancement was performed. T1-weighted sagittal Scan showed significant dura and subarachnoid enhancement on midline parietal region, whereas, there were no atrophy of cerebellum, no protrusion of cerebellar tonsil or found. Chronic pachymeningitis was suspected and cerebrospinal fluid (CSF) tapping was performed. The open pressure is 50-80 mmCSF. CSF analysis showed glucose 56 mg/dL, cell count 0 μl, and microprotein 27 mg/dL. VDRL and cryptococcal antigen was negative in the CSF. Blood autoimmune profile showed ESR 5mm/1hr, ANA: negative, IgG: 538 mg/dL, IgM: 34.8 mg/dl, C3: 93.3, C4: 19.9 mg/dl. Blood tumor marker evaluation showed: AFP: <1.3 ng/mL, CEA: 1 ng/mL, CA19-9: 4.36 U/ml. Elevated CA-125 (70.7 U/ml) was detected. Then this patient is transferred to gynecology ward for further evaluation.

Conclusion: Pachymeningitis is a rare disease. We reported a case manifested as pure progressive cerebellar ataxia and laboratory test showed elevated CA-125.

157

Case report: a case of sspe manifested as bilateral occipital leukoencephalopathy similar to pres

Chieh-Min Lu, Ming-Jun Tsai

Department of Neurology, China Medical University Hospital,Taichung, Taiwan; School of Medicine, Medical College, China Medical University Taichung, Taiwan; Department of Neurology, Tainan Municipal An-Nan Hospital-China Medical University, Tainan, Taiwan

Background: Subacute sclerosing panencephalitis is a progressive degenerative disease of the central nervous system which affects young children who had measles some 6–7 years earlier. The clinical presentation of SSPE is usually insidious with 4 stage i.ncluding symptoms as bizarre behavior, visual disturbance, myoclonus, seizure, ataxia, extrapyramidal features and dysautonomia. Reports of adult onset cases are rare and the diagnosis with nontypical presentation is considered exceptional. Here we present a case of suspected adult onset SSPE with atypical clinical picture.

Case Report: This 44 y/o male worker developed insidious unsteady gait since 2 years prior to admission. Mentality change was noted and progressed to mutism in months. There was no prodrome of bizarre behavior or visual disturbance. Extrapyramidal features, seizure