Facial droop and right upper extremity weakness, successfully treated. Here we present a case of Hashimoto’s encephalopathy associated with hypothyroidism. Other findings such as elevated protein in cerebrospinal fluid may be important for blood pressure of 167/84 mm Hg. A neurologist examined for confusion, disorientation, and left-sided facial droop, and decreased sensation on the left side of the face. Several days after admission patient continued to be confused and irritable. Not back at baseline. The comprehensive metabolic panel, ammonia level, and complete blood count were grossly normal. Urine drug screen positive for THC and benzodiazepine, blood alcohol level not detected, negative for Hepatitis B and C, blood parasites smear (thick/wet), antinuclear antibodies, and anti-double-strand DNA, and angiotensin-converting enzyme. Other infectious disease workup including Herpes simplex virus, cryptococcal antigen, HIV antigen/antibody, QuantiFERON, Lyme, West Nile anti-body IgM, mycobacterium tuberculosis real-time polymerase chain reaction, John Cunningham (JC) virus, viral encephalitis, varicella-zoster virus, Strongyloides, coccidiosis, and bacterial polymerase chain reaction. VDRL. Lumbar puncture with elevated protein of 127 and elevated leukocytes with 98% lymphocytes (reference range 40-400%). Thyroid function is remarkable for suppressed thyroid-stimulating hormone (TSH) of 0.01 uIU/ml (and mildly elevated free T4 of 2.38 u/ml, with positive anti-thyroid peroxidase and thyroglobulin antibodies concerning for Hashimoto’s encephalitis. There is some evidence that azathioprine may be effective. Other treatments include cyclophosphamide and methotrexate with variable degrees of success are described in the literature.

Epidemiology

- The prevalence of HE is estimated to be 2.1-100,000 subjects with subclinical hypothyroidism and detectable antithyroid antibodies.
- The incidence of HE is higher in female (about 70–88%) with a female-to-male ratio of 4:1.[1]
- The average age of onset is about 40 years old.[2] The neurological disorder associated with Hashimoto’s encephalitis is a rare autoimmune condition with a wide range of neurological and psychiatric features, associated with high serum antithyroid antibodies (ATAs).
- It usually presents with hypothyroidism and occasionally with hyperthyroidism, with a broad spectrum of neurological and psychiatric symptoms, including behavioral changes, seizures and stroke-like manifestations. Other findings such as elevated protein in cerebrospinal fluid (CSF) and eosinophilia in CSF indicate a neuropathological condition.
- Hashimoto encephalitis may represent an immune complex disease since antithyroid antibodies were found in the cerebrospinal fluid (CSF) of patients with HE.[3] HE is a diagnosis of exclusion after brain events, infections, metabolic, vascular, neoplastic, and other neurological antibody syndromes have been ruled out. The mechanism is unclear, but the direct toxic effect of thyrotropin-releasing hormone (TRH) has been suggested, after intravenous administration of TRH-induced symptoms. Patients can present with neuromuscular-reaction or a diffuse, progressive pattern, with a slowly progressive cognitive impairment, dementia, confusional, or hallucinations.[8]

- During his hospital stay, the patient was uncooperative, and he continued to be drowsy even after the initiation of antibiotics and antivirals for which he underwent a second lumbar puncture with the same CSF findings. Patient without growth on CSF and lack of clinical improvement despite empirical use of acyclovir and broad-spectrum antibiotics (vancomycin, ampicillin, and ceftriaxone) for possible meningoencephalitis. After neurology reevaluation, he was started on methylprednisolone daily, prednisone 60 mg daily, and beta-blockers under the impression of hyperthyroidism due to Hashimoto’s as a cause of lymphocytic meningoencephalitis, with marked improvement of mentation and confusion over the next several days.

- The analysis of CSF may show increased cellularity due to lymphocytic pleocytosis and a high CSF protein concentration like in our case. CT brain and MRI are usually unremarkable, and although EEG adds little to the diagnosis of HE, the most frequent change is a widespread slowing of waves. CT and MRI are usually unremarkable, and although EEG adds little to the diagnosis of HE, the most frequent change is a widespread slowing of waves. EEG may show slow waves, which are consistent with encephalitis. A 61-year-old male was admitted to the emergency department as a stroke alert for left facial droop and altered mental status. Previous medical history was significant for hypertension, hypothyroidism, coronary artery disease status post, and diabetes mellitus type 2. The patient had no known thyroid disease. As per family history, the patient was not feeling well for the last couple of days with complaints of fever and chills and was confused and unable to identify family members. The patient had no recent travel or infections. Six hours prior to admission his wife noted him with a left-sided facial droop and worsening confusion. The patient had rapidly resolved left-sided facial droop while in the emergency department and was outside the window for tPA which was not given. Capillary blood glucose was normal and vital signs were only remarkable for blood pressure of 167/84 mm Hg. A neurologist examined for confusion, disorientation, left-sided facial droop, and decreased sensation on the left side of the face. Several days after admission patient continued to be confused and irritable. Not back at baseline.

Discussion

Hashimoto encephalitis may represent an immune complex disease since antithyroid antibodies were found in the cerebrospinal fluid (CSF) of patients with HE.[3] HE is a diagnosis of exclusion after brain events, infections, metabolic, vascular, neoplastic, and other neurological antibody syndromes have been ruled out. The analysis of CSF may show increased cellularity due to lymphocytic pleocytosis and a high CSF protein concentration like in our case. CT brain and MRI are usually unremarkable, and although EEG adds little to the diagnosis of HE, the most frequent change is a widespread slowing of waves. CT brain and MRI are usually unremarkable, and although EEG adds little to the diagnosis of HE, the most frequent change is a widespread slowing of waves. EEG may show slow waves, which are consistent with encephalitis. The average age of onset is about 40 years old. The neurological disorder associated with Hashimoto’s encephalitis is a rare autoimmune condition with a wide range of neurological and psychiatric features, associated with high serum antithyroid antibodies (ATAs). It usually presents with hypothyroidism and occasionally with hyperthyroidism, with a broad spectrum of neurological and psychiatric symptoms, including behavioral changes, seizures and stroke-like manifestations. Other findings such as elevated protein in cerebrospinal fluid (CSF) and eosinophilia in CSF indicate a neuropathological condition.