Abstract

Steroid-Responsive Encephalopathy Associated with Autoimmune Thyroiditis (SREAT) is a rare disease which can present with diverse neurological and neuropsychiatric manifestations and lack of confirmatory diagnostic investigation thus leads to diagnostic delays. Hight titres of Anti- TPO antibodies are seen in majority of the patients. Treatment initiation can rapidly reverse the clinical symptoms and gives a retrospective diagnosis.

Case presentation

A 20 year old previously healthy girl with the history of progressive behavioural changes and irritability for 4 weeks duration presented with episode of GTC seizure, occasional headache and fever. She did not have photophobia, phonophobia or vomiting. On examination no features of meningism or focal neurological signs found. She was initially started on IV antibiotics and antiviral for possible meningoencephalitis with poor clinical response. Serum electrolytes including calcium and magnesium were normal. Brain imaging was normal. CSF full report showed cyto protein dissociation. CSF culture was sterile and viral studies were unremarkable. ANA was negative. She was found to have high titres of Anti-TPO antibody with normal thyroid function test and ultrasound scan of thyroid gland. Autoimmune encephalitis screening with NMDA receptor antibody and LGI 1 receptor antibody was negative. Ultrasound abdomen did not show any features of ovarian teratoma. She was pulsed with IV Methylprednisolone 500mg daily for 5 days followed by oral Prednisolone 1mg/kg/day dosage slowly tapered over 3months. Her clinical symptoms rapidly resolved after 3 days of IV Methylprednisolone and she remained free of symptoms in due course.

Conclusion

SREAT presents as common neurological and neuropsychiatric manifestations which leads to delay in diagnosis. No definite blood or imaging or CSF investigations are diagnostic for the disease, adds a diagnostic dilemma to the treating physician. High amount of clinical suspicion needed at initial workup to arrive at early diagnosis and treatment. Anti TPO antibodies along with retrospective treatment response to steroids in the background of exclusion of other differentials lead to the diagnosis.