

COGNITIVE IMPAIRMENT IN PATIENTS WITH AUTOIMMUNE THYROIDITIS: AN UNDERDIAGNOSED ENTITY?

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Introduction: Autoimmune thyroiditis with hypothyroidism is an undisputed cause of cognitive dysfunction and encephalopathy. However, attributing mild cognitive complaints to this condition, in patients under adequate T4 supplementation, remains controversial.

Case: A 39 year-old woman complained of cognitive impairment when performing complex tasks or multi-tasking, accompanied by occasional dizziness and headache, which had been waxing and waning for 5 years. Prior medical history revealed an autoimmune thyroiditis with a high anti-peroxidase antibody titer (683 IU/mL), diagnosed when the symptoms started, currently under adequate T4 supplementation. Her neurological examination was normal, except for slow speech and frequent pauses, losing narrative flow. Cerebral and cervical MRI and MRA, vestibular testing, ambulatory blood pressure and 24h Holter monitoring were normal. Remaining immunological testing, insulin levels and catecholamine metabolites were within normal range. A 24h EEG consistently revealed bouts of mainly alpha, but also theta activity in a left anterior temporal location, reflecting dysfunction in those areas, during the complaints of clouding of consciousness. Formal neuropsychological testing showed mild executive dysfunction. A 3-day intravenous pulse of 1gr methylprednisolone was tried, with subjective improvement and normalization of speech. A repeat 24h EEG showed no bouts of theta waves and a marked reduction in the periods of abnormal alpha activity.

Conclusion: We describe a case of subjective cognitive complaints with objective EEG findings and improvement after corticosteroids. The association of subtle cognitive deficits with autoimmune thyroiditis is seldom reported, making this a rare, or underdiagnosed, entity.