Case Report: Clinical presentation of auto-immune encephalitis in an adolescent female

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Introduction

- In adolescents, catatonia is recognized with a reported prevalence of 0.6 to 17.7% [1,2]. Approximately 20% of catatonia cases are due to an underlying medical condition [3,4].
- The presence of neurological, neurobehavioral and neurocognitive symptoms with an acute or subacute (less than 3 months) onset should initiate a detailed workup, including brain magnetic resonance imaging (MRI), electroencephalogram (EEG), and cerebrospinal fluid (CSF) analysis, to confirm autoimmune encephalitis and exclude other diagnoses [5].
- In addition to 1st, 2nd and 3rd line management of the autoimmune encephalitis (consisting of corticosteroids, intravenous immunoglobulins, plasma exchange and immunotherapy), the management of psychiatric symptoms remains challenging.
- Antipsychotic use should be considered based on a risk-benefit analysis.

Aim

- To describe a patient presenting with auto immune encephalitis, and the diagnostic and management challenges posed in this vulnerable population.

Case

- 16 year female presented with a 3/7 history of disorganised behaviour, mood dysregulation and neurovegetative abnormalities
- Admitted for psychiatric workup and treatment but noted to fluctuate during admission with emerging catatonic symptoms with possible seizure
- Transferred to a tertiary hospital for higher level of care
- Medical investigations warranted internal medicine, neurology and neuropsychiatry review
- Autoimmune encephalitis workup requested, lorazepam trial initiated and typical antipsychotics weaned and stopped due to EPSE. Amisulpride 50mg was commenced for behavioural containment.
- NMDAR antibody noted on serum
- Patient showed minimal response to intravenous steroids, 5 cycles of plasma exchange, rituximab trial (2 month period).
- ECT considered early but delayed due to COVID infection (initially negative on transfer), consent issues and logistic problems.
- ECT commenced 2 months post admission with definitive response after 6 sessions of bitemporal administration.

Discussion

- Evidence based research regarding psychiatric management in complex and critically ill patients as presented in this case report is limited.
- Medical literature focuses mainly on immunotherapy in autoimmune encephalitis patients [6].
- Although there is limited data on the use of ECT in the management of catatonia due to autoimmune encephalitis, this case report highlighted the possible benefits of ECT in adolescents with this presentation and contributes to a growing body of evidence supporting its possible incorporation in treatment protocols [7].

Conclusion

- It is imperative for a psychiatric and medical MDT to have a high index of suspicion for diagnosing autoimmune encephalitis in adolescents presenting with catatonia
- Emphasis on use of ECT early in management of adolescents with autoimmune encephalitis complicated by catatonia
- Use of psychotropics should be considered with caution

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