Massachusetts General Hospital
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HARVARD MEDICAL SCHOOL
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Stuck at the Scene:
Trauma-Emergent Catatonia in a Patient with Landau-Kleffner Syndrome

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Background

Catatonia is a complex neurobehavioral disorder typically associated with psychiatric and medical conditions.

Early research suggests a potential link between psychological trauma and catatonia, supported by animal studies showing tonic immobility resembling catatonia as a fear response.[1]

Individuals with neurodevelopmental disorders have a higher prevalence of catatonia compared to the general population and may be more susceptible to the impact(s) of trauma.[2] Landau-Kleffner syndrome, first described in 1957, is a rare childhood epileptic encephalopathy that results in seizures and loss of neurocognitive function—including an acquired aphasia—over time.[3]

To date, there are no documented cases of catatonia in a patient with Landau-Kleffner syndrome. This case report reveals the complexities of how trauma and catatonia might present in a patient with this disorder.

Case Description

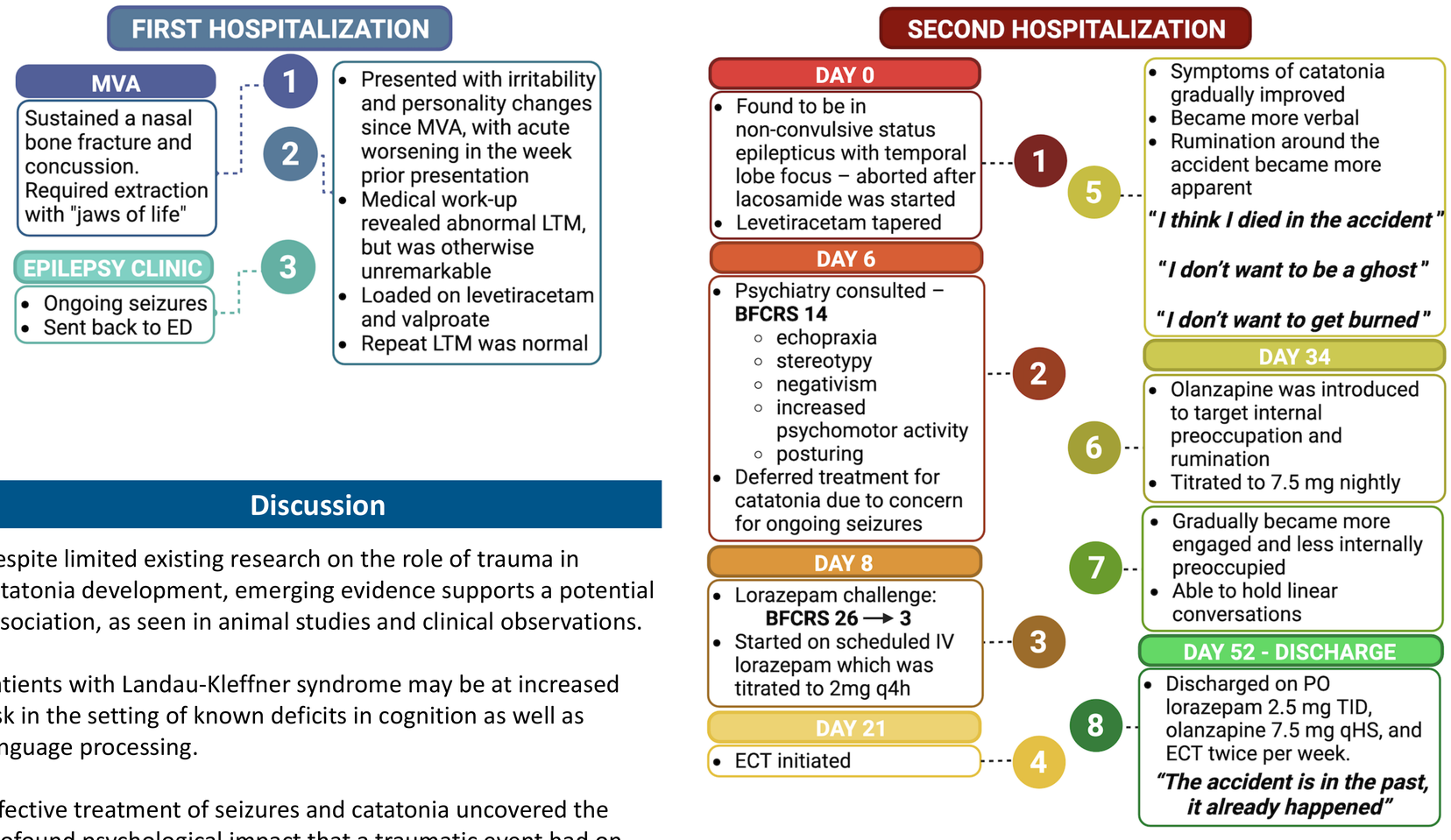
A 21-year-old male with a history of Landau-Kleffner syndrome (verbal and on no anti-epileptics for over a decade) was brought to the hospital by his family for progressive functional and cognitive decline with complaint of recurrent abdominal pain.

He had not had any seizures since the age of 7 or 8 and had been off anti-epileptic medications since the age of 13. At baseline, he is unable to read or write, but he can engage in normal conversation.

He had been in his usual state of health until about 3 months prior, when he was involved in a single-passenger motor vehicle accident requiring the 'jaws of life' to remove him from the car, resulting in a frontal hematoma with concussion and a thigh laceration.

Since then, he had become increasingly labile and perseverative with staring spells.

Treatment Course



Discussion

Despite limited existing research on the role of trauma in catatonia development, emerging evidence supports a potential association, as seen in animal studies and clinical observations.

Patients with Landau-Kleffner syndrome may be at increased risk in the setting of known deficits in cognition as well as language processing.

Effective treatment of seizures and catatonia uncovered the profound psychological impact that a traumatic event had on him.

Conclusion

This case underscores the importance of considering trauma as a potential contributor to psychiatric manifestations, including catatonia, in individuals with neurodevelopmental disorders.

Further research is warranted to elucidate the complex interplay between trauma, neurodevelopmental disorders, and catatonia, with the aim of informing targeted interventions and improving clinical care for affected individuals.

References

1. Moskowitz, A. K. (2004). "Scared Stiff": Catatonia as an Evolutionary-Based Fear Response. *Psychological Review, 111*(4), 984–1002.
2. Moore, S., Amatya, D.N., Chu, M.M. *et al.* Catatonia in autism and other neurodevelopmental disabilities: a state-of-the-art review. *npj Mental Health Res* **1**, 12 (2022).
3. Muzio MR, Cascella M, Al Khalili Y. Landau-Kleffner Syndrome. 2023 Jul 3. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. PMID: 31613525.