

# Chronic Confabulatory State in a Man with Traumatic Brain Injury: A Case Report

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## Case Diagnosis

50 year old male with history of anxiety and alcohol abuse, who presented to acute inpatient rehabilitation with chronic confabulatory state after suffering grade 3 DAI, frontal lobe IPH, IVH, and SDH.

## Case Description

This is a 50 year old male with severe TBI and post traumatic amnesia lasting 42 days, who was discharged from the acute hospital with a Ranchos Los Amigos score of VII. His rehabilitation stay was complicated by recurrent confabulation that was attributed to chronic delirium and agitation. His ongoing delirium and behavior were addressed through a multi-disciplinary approach. Tried medications included: amantadine, which exacerbated agitation; trazodone and amitriptyline, which had no effect; methylphenidate, valproic acid, propranolol, and risperdone, which helped with mood stabilization; and nightly scheduled oxycodone, which addressed his daily agitated behaviors due to worsening osteoarthritis pain after participating in therapy. Despite these efforts, his confabulations continued to wax and wane. Eventually, donepezil (a central acetylcholinesterase inhibitor) was started for chronic confabulatory state.

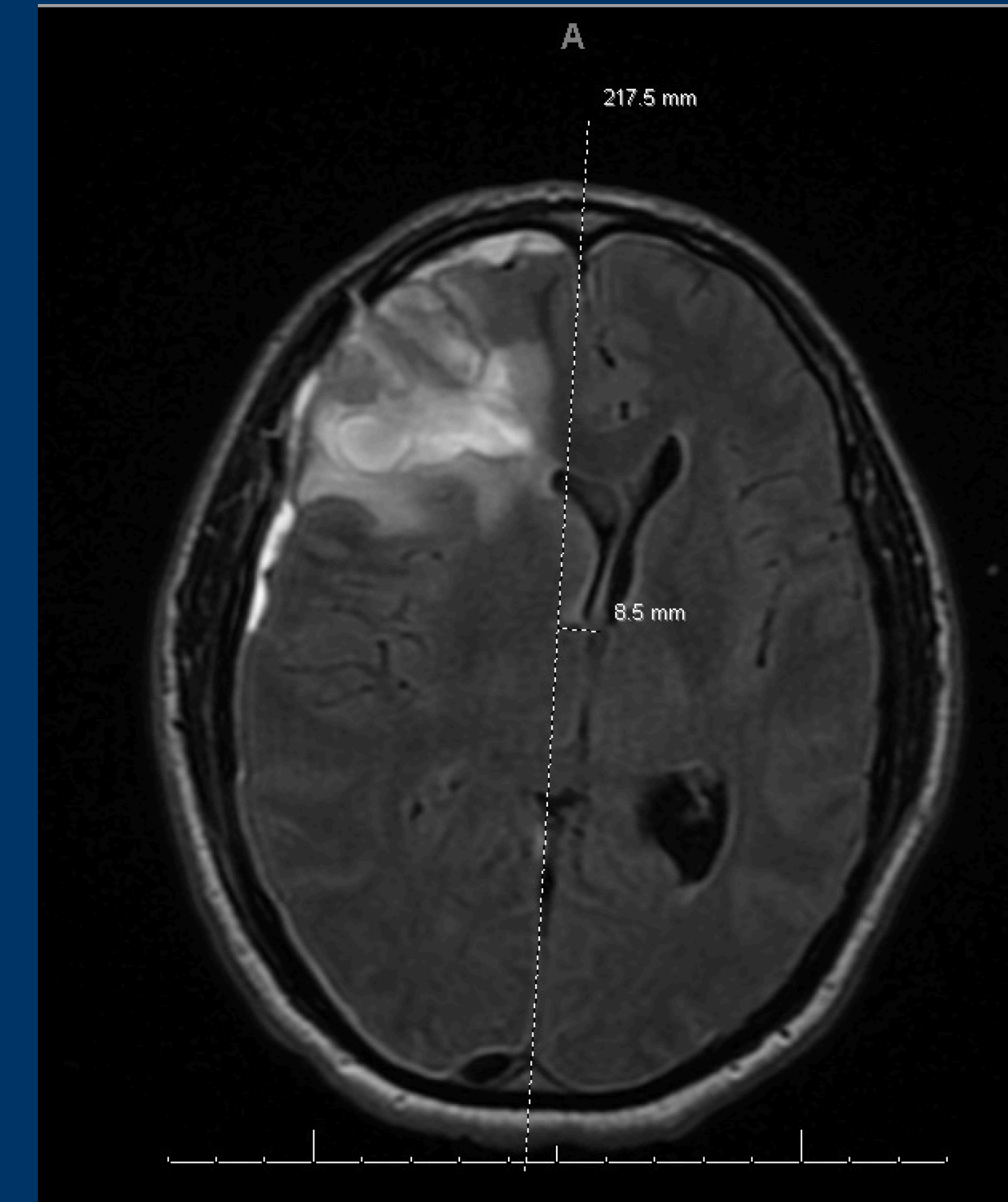
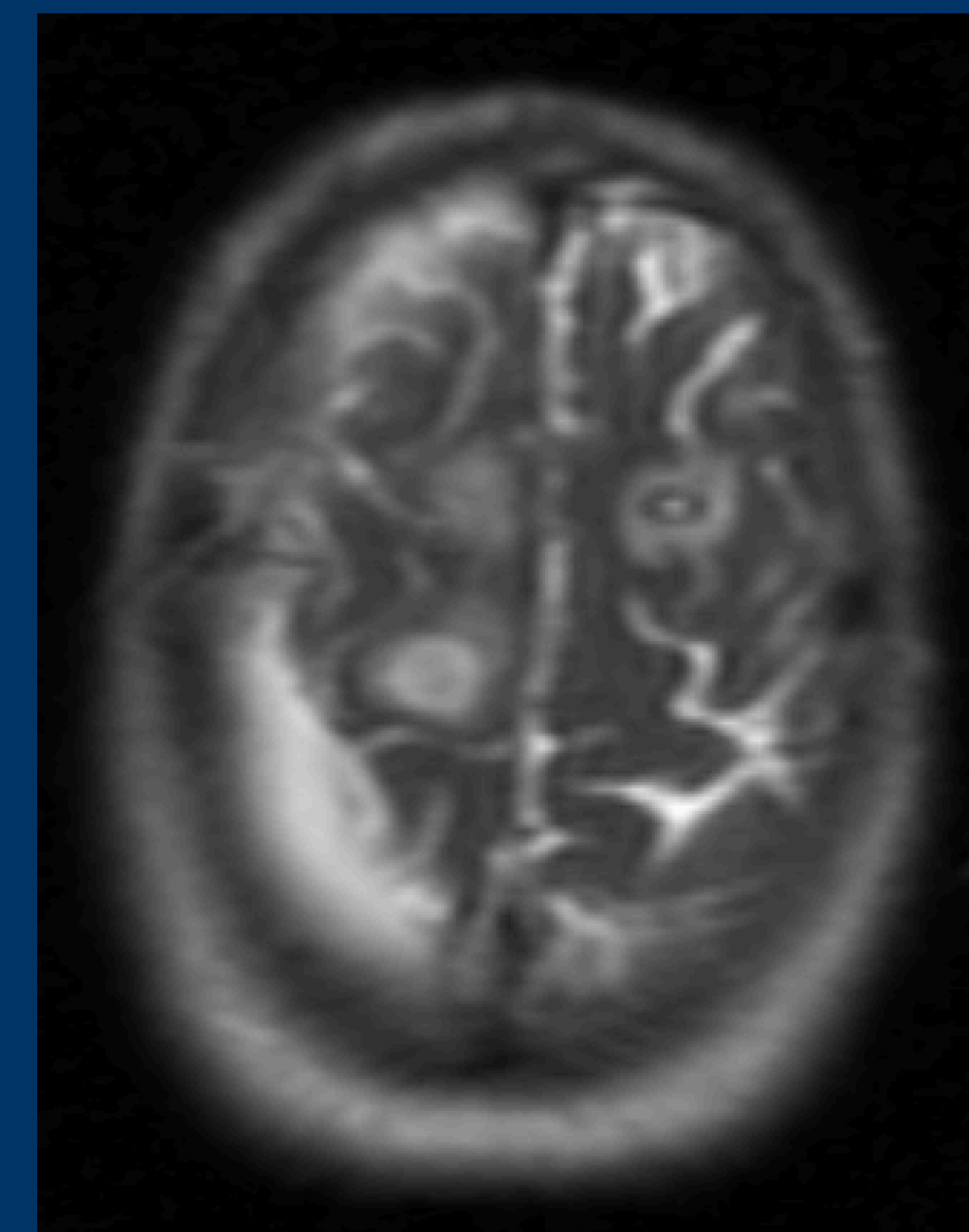


Figure 1 and 2: MRI Head with Contrast showing Grade 3 DAI, with shear injury and hemorrhagic involving of the gray white interface of the B/L frontal lobes and midbrain. B/L hemorrhagic contusions and IPH involving R frontal and B/L temporal lobes, IVH, and R subdural hemorrhage. Associated mass effect results in B/L uncus herniation, subfalcine herniation, and 9 mm of right-to-left MLS. Partial effacement of the R ventricle. Multiple skull base fractures, comminuted right frontal skull fracture.



## Discussion

Donepezil has been suggested as effective therapy for neurocognitive changes after TBI (1). After starting donepezil 5 mg nightly, he showed gradual improvements in his self-orientation, awareness of his current state, and recognition of his anxiety. His Agitation Behavior Scale scores improved, leading to a decreased frequency of agitation medication administration (trazodone). He showed cognitive improvements in neuropsychological subtests, and an overall reduction in the frequency of his delusions and confabulations.

Chronic confabulatory states are potential sequelae of brain injury, especially when involving the frontal lobe. The patient's ongoing confabulation months into his acute inpatient rehabilitation warranted the novel use of donepezil. One month after starting low dose donepezil, patient displayed enhanced memory and recall.

## Conclusion

Donepezil may provide a benefit in chronic, confabulatory states post traumatic brain injuries (2). A prospective, randomized clinical trial assessing the benefits of donepezil in patients showing unique symptoms, such as persistent confabulation, and inadequate improvement to conventional treatment is warranted.

## References

- (1) Ballesteros et al. The Effectiveness of Donepezil for Cognitive Rehabilitation after Traumatic Brain Injury: A Systematic Review. *Journal of Head Trauma Rehabilitation*. 23:3;171-180.
- (2) Walker et al. The Effects of Donepezil on Traumatic Brain Injury Acute Rehabilitation Outcomes. *Brain Inj*. 18:8; 739-50.