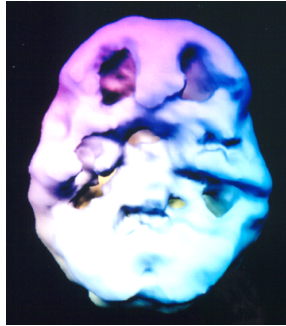


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Review Last week: ADHD and Bipolar Disorder – Watching the Affect

## Program 8: Today – ADHD and TBI: Hopes, Cautions, Medication Protocols

After having seen thousands of SPECT brain scans, I can report with certainty that TBI is often missed in the ADHD differential, and is more frequently found than expected. TBI is where SPECT proves most useful to assess either or both ADHD and TBI as well as comorbid mood disorder.

1. From “mild post concussive syndrome,” to “no overt symptoms” that appear brain related, brain injury can is often overlooked.
2. Remember Phineas Gage 1848: You don’t have to be knocked unconscious.
3. Often the patient doesn’t remember the injury until they actually see their brain in the SPECT review process.
4. Brain injury does make a big difference in the process of adjusting ADHD meds. Those with TBI are very sensitive to any medical intervention, specifically stimulant meds, and indeed any meds for any comorbid conditions, such as antidepressants for depression.
5. A different, more careful, attitude with TBI medication treatment objectives can significantly improve outcomes. TBI can often have associated ADHD problems and often can use augmentation with stimulant medications after the temporal lobe dysregulation is adequately addressed.

In the previous program on Bipolar Disorder, we reviewed the importance of making the differential diagnosis of Traumatic Brain Injury [TBI] in mood disorders. If TBI is overlooked, the stimulant meds simply don’t work effectively, and they often make the patient worse.

Seven Tips on TBI and ADHD:

1. **Ask about head injury:** Clinical evidence and the scientific literature contain numerous references regarding ADHD symptoms occurring simultaneously with brain injury. Often brain injury will aggravate a pre-existing ADHD as one or multiple injuries can draw down on the *brain reserve* – it's ability to compensate and regenerate
2. **CAT and MRI findings:** Often miss functional aspects of TBI and cannot differentiate ADHD: Consider having functional brain imaging to see the problems. Brain injury injures function more clearly than it shows anatomically. SPECT and PET are functional imaging processes to evaluate the locality of the brain dysfunction.
3. **ADHD Meds aggravate comorbid TBI:** - Unless the meds are set up in sequence with full regard for the specific brain issues present in the brain injury. Numerous citations in the literature agree that stimulants may be used with brain injury, but they must be used with caution. [Vyvanse water titration.]
4. **Functional SPECT imaging to set the plan:** SPECT will help establish an order to starting medications - temporal lobes can become significantly dysregulated with injury, and stimulant meds aggravate temporal lobe problems. Start with temporal interventions first.
5. **Dosing strategies for ADHD and TBI:** Always go lower and slower with dosing in situations with coexisting ADHD and brain injury. Start with antiepileptics first and regulate moods, then next to the stimulants if depression is not associated.
6. **Atypical reaction to stimulants – suspect TBI:** This is *not* the way to make the diagnosis of brain injury, but for various reasons, from denial to accommodation, the TBI diagnosis is missed at first. If TBI is missed, the stimulant meds will cause profound reactions.
7. **Brain reserve:** Enhanced with stimulant medication, encouraging less injury. - Less re-injury, more healing. Antidepressants have shown specific BDNF increases in rats. TBI with ADHD is the place for neurotransmitter precursor testing to actually heal brain and increase NT efficiency. Simple DA reuptake inhibitors don't adequately cover the long-term recovery process.