Mental Health Conditions and Treatment After TBI

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Disclosures

• I have no conflicts of interest
Greetings!

• Neuropsychiatrist
  – Medical school
  – Psychiatry residency
  – Neuropsychiatry fellowship

• Obtain history, including emotional state, thought process, and cognition

• Diagnose mental health and cognitive conditions

• Provide treatment and guidance
Review

• Dr. Kane spoke last week and defined TBI, discussed the vulnerable brain regions and the classification of severity of injury
• She reminded us that there are many pre-injury factors that impact rehabilitation and recovery
  – We “bring our whole selves” to TBI recovery
• Common mental health problems associated include depression, trauma-related disorders, anxiety disorders, and difficulty adjusting to disease
Factors affecting Outcome after TBI

Pre-Injury Factors

Cognition

Emotion

Injury Factors

Behavior

Sensorimotor Function

Post-Injury Factors

Impaired Arousal
Impaired Attention
Slowed Processing
Memory Disturbance
Communication
Impairments
Apraxia
Visuospatial Dysfunction
Executive Dysfunction
Pathological Affect
Depression
Anxiety
Irritability/Anger
Agitation
Aggression
Disinhibition
Apathy
Sleep Disturbance
Fatigue
Headaches
Pain
Visual Problems
Dizziness/Vertigo
Seizures

Common Post-TBI Neuropsychiatric Symptoms

- Depression
- Mania
- Affective lability (changing mood)
- Anxiety
- Apathy/problems with low motivation
- Psychosis (hearing voices, seeing things, paranoia)
- Aggression, agitation, self-injury
- Sleep disturbance
- Fatigue
“By The Book” vs “Syndromic” diagnosis

• DSM-5 is the diagnostic manual for psychiatric conditions
  – Expert consensus, research supported criteria for making a diagnosis of specific conditions
• Psychiatric conditions are not yet diagnosed with biomarkers (blood tests) or structure/function studies (brain MRIs, etc)
• Mental health conditions in the context of brain injury are often not ”classic” and don’t follow checklists
• Hence, we recognize and treat symptom clusters, and offer treatment for issues that interfere with function and happiness
Progress and Stages

- TBI recovery is a dynamic process!
- The first days, weeks, month, and year contain big changes
- Mental health symptoms are dynamic and may ebb and flow along with recovery
- Pre-existing mental health conditions may change
- Symptoms may be affected by a variety of factors
  - Pain
  - Medication
  - Cognitive symptoms
  - Immediate post-injury neurological impact
Symptoms of Depression

• Typical symptoms include sad mood, decreased interest, changes in sleep (increased or decreased), appetite changes, guilty/blaming thoughts, changes in focus or concentration, low motivation, slower movements, thoughts of wishing for death or of self-harm.

• In TBI recovery, these symptoms may also have other causes (cognitive impairment from the injury, medication side effects, impact of unfamiliar environment).

• Some people experience more irritability/short fuse and may not be able to identify sad mood.

• Untreated depression may interfere with rehab process.
Treating Depression Post-TBI

- SSRIs are first-line therapies for most outpatients
- SSRIs or stimulants are first-line therapies for inpatients, particularly during the early post-injury period.
- Common SSRIs include fluoxetine (Prozac), sertraline (Zoloft), escitalopram (Lexapro)
- Potential side effects may include nausea or diarrhea, nightmares, or headaches
  - Generally minimal to no side effects, however
- Common stimulants include methylphenidate (Ritalin) and amphetamine salts (Adderall)
  - Controlled substances, can cause low appetite and sleep disturbance
Symptoms of Mania/Mood Instability

- Less frequently seen but important to recognize
- Prolonged elevated or irritable mood lasting for days
- Decreased need for sleep, increased activity, restlessness, impulsivity
- In some cases, people may experience rapid mood changes or spells of anger or explosiveness
  - This may also be seen in depression
Treating Mania/Mood Instability Post-TBI

• Similar medication strategies for non-TBI-related mania/mood instability

• Can include mood stabilizing medications such as lithium and valproic acid (Depakote)
  – These require blood levels for safety monitoring

• May also include antipsychotic medications used as mood stabilizers
  – Common medicines in this family include quetiapine (Seroquel), risperidone (Risperdal), olanzapine (Zyprexa)
  – More likely to cause metabolic side effects like weight gain and high cholesterol, but do not require levels
Symptoms of Anxiety

- Internal nervous tension, restlessness
- Racing thoughts, many worries
- Trouble sleeping
- Trembling, racing heart, shortness of breath
- Feeling on edge, need to escape
- Panic attacks
  - Brief spells of increased anxiety, that pass in 10-15 minutes and often cause avoidance
Treating Anxiety Post-TBI

• Strategies generally follow treatment of anxiety in the non-TBI population
• SSRI medications remain first line treatment
• Generally would want to avoid sedating anti-anxiety medications
  – More likely to have disinhibition
  – Can be addictive
Symptoms of Pathological Laughing and Crying

• Pseudobulbar affect
• More typically sobbing than laughter, but may experience both
• “Emotional incontinence”
• Spells of emotion that pass quickly
• Surface expression of emotions without deep feelings
• Often triggered by external stimuli
  – Movies, commercials, jokes
Treating Pathological Laughing and Crying

• A variety of medications may be somewhat helpful in this condition

• One medication, dextromethorphan/quinidine, is specifically approved for this condition
  – Has drug-drug interactions, may cause emotional blunting, and can be costly

• Often, this condition can be responsive to lower doses of medications than the doses used in other conditions
  – However, medications may not be as helpful as education of patients and families

Medications used include antidepressants, stimulant medications, mood stabilizing medications, and dopaminergic medications
Selected References


Thank You

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