

mental disorder flashbacks stress help  
fear risk memories avoidance  
anxiety  
PTSD  
hypervigilance  
trauma  
cognitive  
behavioural  
memories  
avoidance  
depressed  
survivors  
diagnose  
individuals  
traumatic  
confront  
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accidents  
arousal  
PTSD  
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# Managing Anxiety in Epilepsy

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# Why are Psychiatric Comorbidities so Important?

- Psychiatric comorbidities impact on treatment outcome both with medications and surgical intervention in epilepsy
- Psychiatric comorbidities have a greater impact on Quality of Life (QOL) than the epilepsy itself
- Psychiatric comorbidities are significantly higher than in the general population
- Psychiatric comorbidities are not well understood and often not identified in individuals with epilepsy

# Is Anxiety in Epilepsy Important?

- Anxiety in epilepsy is a significant comorbidity
- The prevalence of anxiety is 10-25%; significantly higher than the rate in general population
- The prevalence of depression is also significantly higher; frequently present with anxiety
- Understanding the psychological and neurophysiological aspects of anxiety including those specific to epilepsy are critical for the formulation of treatment

# How Do We Define Anxiety?

- DSM-IV-TR (Now DSM-V) defines a number of different conditions associated with anxiety. The definitions are not specific for epilepsy
- Generalized Anxiety Disorder:
  - A feeling of being anxious and worried most of the time. Often accompanied by being restless, fatigued, irritable, and tense with poor sleep

- Panic Disorder:

Periods of intense fear with palpitations, racing heart, sweating, difficulty breathing and a shortness of breath

- Agoraphobia:

Anxiety in situations where it may be difficult to escape from like crowds, planes, buses

- Post Traumatic Stress Disorder ( PTSD):

Occurs following exposure to a traumatic event which has made one fearful and helpless. This is followed by intrusive recollections (flashbacks), recurrent troubling dreams(nightmares), intense distress from cues which remind one of the event (triggers). Also associated with avoidance of reminders of the trauma, detachment, and disturbed sleep.



- Social Phobia:

A marked or persistent fear of social situations or performance situations

- Obsessive-Compulsive Disorder:

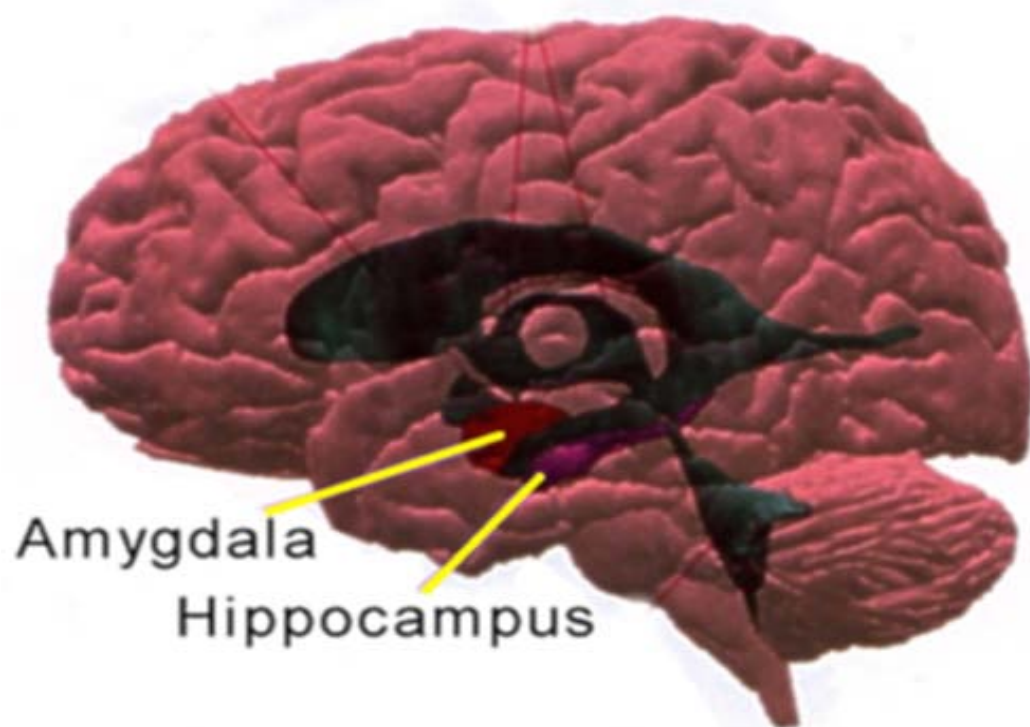
Recurrent obsessions that are intrusive and cause anxiety. Compulsions (repetitive behaviours) in response to obsessions in order to reduce distress)

# What are the causes of anxiety?

- Psychosocial; before onset of epilepsy
- Genetic
- Psychosocial; after onset of epilepsy
- Directly related to epilepsy with involvement of the amygdala and hippocampus
- Medication or substance related
- Medical conditions
- In association with other psychiatric comorbidities

# How Anxiety is Connected to Epilepsy?

- Two regions of the brain (Limbic System) are associated with anxiety:
- Amygdala-associated with the processing of emotional reactions and memory
- Hippocampus-involved in consolidation of memory
- Although the mechanism is not clear, seizure activity involving these areas leads to an increase in anxiety



Amygdala

Hippocampus

# How do we assess someone for anxiety?

- A thorough history focusing on precipitating and perpetuating factors
- Evaluating anxiety in relation to seizure activity
- Evaluation from a medical perspective
- Medication review
- Review alcohol and drug use including caffeine
- Specific tests can also be considered

# How Do We Treat Anxiety?

- Non-Pharmacological
- Cognitive Behavioral Therapy
- Dialectical Behavioral Therapy
- Mindfulness Meditation
- Eye Movement Desensitization and Reprocessing (EMDR)
- Trauma Therapies: Lucid Dreaming  
Conscious Reprogramming

# What Should We Know About Medications?

- Pharmacological treatments are an important aspect of the management of anxiety
- It is critical to be aware of impact of medications on seizure threshold. Some medications are largely contraindicated for this reason
- Various Types of Medications
- SSRI's: Antidepressants with anti-anxiety and anti-obsessive properties. Zoloft and Celexa least impact upon seizures

- SNRI's Antidepressants which can impact more so upon seizures. Cymbalta can treat neuropathic pain
- Wellbutrin: Significant risk of seizures; somewhat contraindicated
- Tricyclics: Older antidepressants; most impact upon seizure threshold
- Benzodiazepines: Effective treatments for anxiety. Some addiction potential but probably exaggerated. Limited side effects
- Gabapentin and Pregabalin (Neurontin and Lyrica)
- Antipsychotics



# Examining a Clinical Case...

- Nancy
- 35 year old woman who was brought up by alcoholic parents. Her father would often come home intoxicated, beat up her mother, smash dishes, and be verbally abusive towards everyone.
- Describes her childhood as often “walking on eggshells”.
- Developed idiopathic partial complex seizures at the age of 30. Was terminated at her job shortly after being diagnosed. She was told she “didn’t meet standards”. She also lost her driver’s license.
- She has become depressed since being diagnosed with epilepsy.
- She is frequently anxious and has also developed panic attacks when she feels that her life is “out of control”.

# Demonstration of Relaxation Therapy and CBT

# Conclusions

- Anxiety is frequently experienced by individuals with epilepsy and is a significant cause of co-morbidity.
- A comprehensive assessment strategy is necessary to understand and appropriately treat an individual's anxiety.
- Although knowledge in this area is somewhat limited, current treatment strategies are able to significantly impact upon the symptoms.
- With pharmacological interventions, it is important to be aware of their potential impact on seizures.

Thank you

