EPILEPSY IN THE AGING POPULATION

MAJOR FACTS:
- Patients over 65 fastest growing segment of patients with epilepsy
- Most common serious neurological disorder in the elderly after stroke and dementia
- 25% of new-onset seizures occur after age 65

WHAT ARE SEIZURES?
- A brief, excessive discharge of electrical activity in the brain that alters one or more of the following:
  - Movement
  - Sensation
  - Behavior
  - Awareness
WHAT IS EPILEPSY?

A chronic neurological disorder characterized by a tendency to have recurrent seizures.

The most common serious chronic neurological disorder in the elderly after stroke and dementia.

1 in 26 people will develop epilepsy.

1 in 10 people have a seizure in their lifetime.

CAUSES SECONDARY TO:

- Cerebrovascular Disease/Stroke - leading cause
- Neurodegenerative disorders - Alzheimer’s
- Trauma - head injury, falls
- Brain tumors
- Other causes acute symptomatic with reversible cause - alcohol withdrawal, electrolyte disturbances, hypoglycemia, fever.

DIAGNOSIS

- Challenging - confused with other conditions, sleep disorders, psychogenic disorders
- Eye-witness
- Neurological Exam
- EEG - most common test to diagnose epilepsy, record electrical activity
- CT scan, PET scan, MRI, MEG scan
- Neuropsychological testing
SEIZURE TYPES

- Generalized - Involve the whole brain
  - Include absence and tonic-clonic
  - Symptoms may include convulsions, staring, muscle spasms and falls
- Focal/Partial - Involve only part of the brain
  - Include simple partial and complex partial
  - Symptoms relate to the part of the brain affected
- Aura - A sense of physical or emotional warning before a seizure. Less common in geriatric population.

GENERALIZED SEIZURES

<table>
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<tr>
<th>Tonic-clonic</th>
<th>Absence</th>
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<td>- Loss of consciousness, a loud cry, fall, shallow breathing</td>
<td>- Pause in activity with blank stare</td>
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<td>- Convulsions: stiffening of arms and legs followed by rhythmic jerking</td>
<td>- Brief lapse of awareness</td>
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<td>- Possible loss of bowel/bladder control</td>
<td>- May occur many times a day</td>
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<td>- Usually last 1-3 minutes</td>
<td>- May be confused with daydreaming, lack of attention, ADD in kids</td>
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SIMPLE PARTIAL SEIZURE

- Full awareness maintained
- Rhythmic movements (banging hitting of arms, legs, head)
- Sensory symptoms (tingling, weakness, sounds, smells, tastes, feeling of upset stomach, visual distortions)
- Psychic symptoms (déjà vu, hallucinations, feeling of fear or sadness, or a feeling they can't explain)
- Usually lasts less than one minute
- May be confused with acting out, mystical experience, psychosomatic illness
COMPLEX PARTIAL SEIZURE
• Impaired awareness, inability to respond
• Often begins with blank, dazed stare
• Automatisms (repetitive purposeless movements)
  - Clumsy or disoriented movements, staring, sucking things up, repeated speech or lip smacking
  - Often lasts one to three minutes
  - Often followed by tiredness, headache or nausea
• May become combative if restrained
• May be confused with drunkenness or drug abuse, aggressive behavior

NON-EPILEPTIC SEIZURES
• Events that look like epilepsy, but are not associated with seizure activity on EEG monitoring.
• Thought to be associated with psychological factors. Also called psychogenic seizures
• Video-EEG monitoring is the most effective way of diagnosing

SEIZURE TRIGGERS
• Missed or late medication
• Stress, anxiety
• Fatigue
• Hormonal changes
• Illness
• Alcohol or drug use
• Drug interactions
• Overheating, overexertion
• Extreme heat/cold temperatures
• Certain foods
• Flashing lights
THINGS TO CONSIDER WITH AGING POPULATION

- Symptoms can be more subtle, confused with dementia, depression, and normal aging
- Rate of people with epilepsy is two to three times that of younger adults
- Longer post-ictal period lasting hours to days
- Treatment is more challenging- drug interactions, non-compliance
- Potentially life-threatening- 2-3 times greater mortality
- Status Epilepticus more frequent- EMERGENCY- affecting 86/100,000 in ages 60 and older

EMOTIONAL AFFECTS
- Disrupt quality of life
- Social isolation
- Anxiety and depression
- Withdrawal
- Living alone more problematic
SOCIAL AFFECTS

- Learning and behavior
- Quality of life
- Medication side effects
- Driving eligibility
- Social stigmas
- Discrimination and seclusion

HOLISTIC APPROACH

- Emotional Health
- Diet and Nutrition
- Physical Activity
- Meditation
- Sleep
- Stress Management
- Social Relationships
- Independent Living
- Wellness for caregivers

MULTIDISCIPLINARY TEAM APPROACH

- Neurologist/Neurologist
- General Physician and other specialists
- Psychologist
- Dentist
- Dietary
- Activity director
- Fitness and wellness
- Sleep schedule
- Be sensitive to seizure triggers
- Become familiar with individual patient needs and treatment
• Epilepsyfoundation.com
• ClevelandClinic.org
• CDC Centers for Disease Control- cdc.gov/epilepsy