Post – Stroke Fatigue and Depression

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Disclosure

- Nothing to disclose.
Objectives

- Understand the prevalence, roadblocks and importance of identifying fatigue and depression in post stroke.
- Understand and be able to identify the risk factors and signs and symptoms of fatigue and depression.
- Become familiar with the assessment tools available to help identify PSD.
- Understand the benefits of rehabilitation, physical activity in prevention of fatigue and depression in the patient post stroke.
Post-Stroke Fatigue

• Is common with a prevalence rate from 35% to 92%
• Screening of fatigue and depression is vital
• Exertional fatigue
  • Is related to cardiorespiratory and skeletal muscle fitness
• Chronic fatigue
  • Can be related to depression
Stroke Survivors:

- Often become deconditioned and predisposed to a sedentary lifestyle
- Are at increased risk for falls
- Are at risk for recurrent stroke and other CVDs
- 40% have difficulties with basic self-care 6 months after stroke (e.g., dressing and feeding)
- 30% of stroke survivors report participation restrictions (e.g., difficulty with autonomy, engagement, or fulfilling societal roles) even at 4 years post-stroke
Why am I so tired?

• Experience less energy than prior to stroke
• Using your energy in different ways
• Feel tired due to emotional changes
• Feel tired due to depression
What is Post-Stroke Depression?

One of the most common complications after stroke

Emotional health is just as important as physical health

• Post-stroke depression is described as a feeling of hopelessness that interferes with functioning and quality of life.

• If not treated and managed appropriately, post stroke depression can slow down recovery.

• Depression can set in weeks, months, or even years after the stroke.

http://www.stroke.org/we-can-help/survivors/stroke-recovery/post-stroke-conditions/emotional/depression
Who is affected with Post-Stroke Depression? (PSD)

• 1 of every 3 post-stroke patients
• Associated with poor functional outcomes and higher mortality
• Largely under-reported
• If not treated PSD may affect:
  • Rehabilitation efforts
  • Quality of Life
  • Recovery overall
  • Caregiver health
  • Survival
  • Health Care System
Effect of Post-Stroke Depression on Recovery

- Depression may jeopardize a patient’s ability to meet functional goals and to reintegrate into society.

- The incidence of complications (e.g., skin breakdown, urinary tract infections), hospital length of stay, and medical costs expenses may all increase because of depression.

- Post-Stroke Depression has been linked with higher mortality rate.
Risk Factors for Post-Stroke Depression

• Age 60 or younger
• Divorced
• Alcoholism
• Non-fluent aphasia
• Major motor or cognitive deficit
• Nursing home / rehab placement
• Lack of social support (family, friends)
• Anxiety
Most consistent predictors

- Physical disability
- Stroke severity
- Depression before stroke
- Cognitive impairment
- Lack of family or social support after stroke
- Anxiety after stroke

No consistent association found.

- Older age
- Female
- Diabetes mellitus
- Stroke subtypes
- Education level
- Living alone
- Previous stroke
Pathophysiology of Post-Stroke Depression

• **Poorly understood**

• Complex and involves a combination of these factors:
  - **Biological** components
    - Respond better to pharmacological therapy
  - **Psychosocial** components
    - Respond more favorably to psychotherapy and social support interventions

• **Types of PSD**
  - Major Depressive Disorder
  - Dysthymic Reactive Depression

• Further research is needed to develop a better understanding to help develop targeted interventions for prevention and treatment.
Signs and Symptoms of Post Stroke Depression

- Persistent sad, anxious or empty feelings
- Significant lack of energy/Lack of motivation
- Social withdrawal
- Problems concentrating/remembering details
- Difficulty finding enjoyment in anything
- Sleep disturbances - Fatigue
- Irritability
- Increase or decrease in appetite and eating patterns.
- Feelings of helplessness, hopelessness and/or worthlessness
- Aches, pains, HA, and digestive problems that do not ease with treatment
- Suicidal thoughts
Why does PSD often go undiagnosed?

• Diagnosis of PSD is challenging in the acute and chronic aftermath of stroke

• Stroke symptoms can mask depression symptoms making it hard to distinguish the root of the impairments a patient is experiencing.
Can Post-Stroke Fatigue and/or Depression Be Treated?
Screening tools
The most optimal screening tool for PSD remains unclear.

- **CES-D** – Center of Epidemiological Studies-Depression Scale
  - 20 item questionnaire
  - Highest positive predictive value and highest utility for screening
- **HDRS** - Hamilton Depression Rating Scale
  - 21 item questionnaire
  (CES-D and HDRS – high sensitivity but, not feasible in clinical practice)
- **PHQ-9** - Patient Health Questionnaire
  - 9 questions
  - Objectifies degree of depression severity
- **PHQ-2** – Patient Health Questionnaire
  - 2 questions
  - Inquires about the frequency of depressed mood over previous 2 weeks.
  - Includes the first two items of PHQ-9
- **GDS 15** – Geriatric Depression Scale
- **Montgomery Asberg Depression Rating Scale**
- **HDRS** – Hospital Anxiety and Depression Scale (HADS-Total, HADS-D) – high sensitivity
- **Beck Depression Inventory**
- **CGI-S** – Clinical Global Impression Severity Scale
- **SDSS** – Signs of Depression Scale
- Fatigue severity scales
  - Modified Fatigue Impact scale
  - Chalder Fatigue Scale
Timing of Evaluation

• Evaluation should occur the first month following a stroke
• Patients should be monitored at regular intervals, depending on risk factors and presenting symptoms
• Families should be included in the evaluation process
Onset of Post-Stroke Depression

- Occurs in all phases of stroke recovery

- Peak incidence and severity of depression occurs between 6 months and 2 years after stroke.
Treatments

• Treatments that have been proven to be effective include:
  • Medications - Antidepressants
  • Mental Health Therapy
  • Neuromodulation – rTMS, ECT, VNS
  • Psychosocial Interventions
    • Cognitive behavioral therapy
  • Alternative therapies
Medications

• Selective Serotonin Reuptake Inhibitors (SSRIs)
  • First line medication choice – Prozac, Zoloft, Paxil

• Tricyclic and Teracyclic Antidepressants
  • Elavil, Pamelor, Ludiomil

• Novel Antidepressants
  • Wellbutrin, Effexor, Remeron

• MAOI Inhibitors
  • Nardil, Marplan, Parnate
Behavioral Therapy

• Cognitive Therapy
  • Thoughts lead to moods

• Problem-solving therapy
  • Mental health professionals meet with stroke survivors to facilitate awareness of problems and help develop solutions

• Psychosocial behavioral intervention
  • Stroke survivors are provided with opportunities to interact with educational materials and interventionists
Neuromodulation therapy

• These include:
  • Repetitive Magnetic Stimulation (rTMS)
  • Electroconvulsive therapy (ECT)
  • Vagus Nerve Stimulation (VNS).
Alternative Therapy

• Utilizing pre-existing coping techniques
• Repetitive transcranial magnetic stimulation
• Music therapy
• Acupuncture
Prevention

- Pharmacotherapy
- Psychosocial interventions
Healthcare Provider Roles

• A multidisciplinary health team is essential in PSD
  • Screening
  • Diagnosis
  • Treatment
  • Prevention of potential complications

• RN plays an important role
  • Identifying risk factors
  • Effectively screening patients
  • Educating patients and their families on treatment options to combat PSD
Other Considerations

• A post-stroke patient may need:
  • Spiritual support
  • Counseling with a provider who has experience with the diagnoses
  • Support groups

• Providing resources
  • Printed materials
  • Websites
  • Organizations that would be helpful for patient and/or family members

• Assess the patient’s and family’s perception of the diagnoses, and coping mechanisms
Tips to Live with Post-Stroke Fatigue and Depression

• Communication
• Improve nutrition
• Attend a stroke support group
• Set realistic goals and prioritize
• Practice stress and anxiety management techniques
• Be patient with yourself and loved ones.
• Stay as active as possible
• Get out into the community
• Minimize or eliminate alcohol consumption and smoking
Conclusions

• Fatigue and Depression are common after stroke
• Symptoms most frequently develop in the first months to year
• Pathophysiology is poorly understood
  • Psychosocial factors
  • Biological factors
    • Genetic susceptibility, inflammation, alteration in neurotrophic factors, disruption of neural networks, alteration in serotonergic, noradrenergic and dopaminergic pathways
• Most consistent predictors
  • Physical disability, stroke severity, depression before stroke, and cognitive impairment
• Patients with Depression – higher healthcare use, poorer functional outcomes and QOL and higher mortality
Desired Outcome

- An empowered patient able to participate in their recovery process!!
Thank You!
References


6. [Strokeassociation.org/letstalkabout stroke](http://Strokeassociation.org/letstalkabout stroke)