STROKE CARE AFTER DISCHARGE

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Rehabilitation After Stoke

- Inpatient Rehabilitation (Community Hospital)
- Evaluated by PT, OT, ST
- PM&R consult
  - Average stay 10 days
After Discharge

- Follow up appointments
  - Neurology
  - PM&R
  - Primary care provider
  - Cardiology
Secondary Stroke Prevention

Our goal is to prevent additional strokes and maximize recovery
Recurrent Stroke

- 1 out of every 4 of the nearly 800,000 strokes per year
- Often have a higher rate of death and disability because or previously area of the brain may not be as resilient
- Within 5 years of a stroke, 24% of women and 42% of men will experience a recurrent stroke
Stroke Risk Factors-Unmodifiable

- Age
  - >80
- Gender
  - Men, except 35-44 and >85
- Race
  - Higher risk for AA
- Genetics
- Previous stroke or TIA
Stroke Risk Factors - Modifiable

- Hypertension
- Hypercholesterolemia
- Diabetes
- Smoking
- Atrial fibrillation
- Sleep apnea
- Obesity
- Sedentary lifestyle
- Excessive ETOH
- Healthy diet
- Avoid estrogen
A, B, C, D, E

- A-Antiaggregants (aspirin, clopidogrel, extended-release dipyridamole, ticlopidine) and anticoagulants
- B-Blood pressure
- C-Cessation of smoking, cholesterol control, carotid revascularization
- D-Diet
- E-Exercise
Noncardioembolic ischemic stroke or TIA of atherothrombotic, lacunar or cryptogenic

- ASA
- Clopidogrel
- ASA-extended-release dipyridamole
Anticoagulation

- Considered for nonvalvular atrial fibrillation
- Mechanical heart valves, Left ventricular thrombus, dilated cardiomyopathy, rheumatic valve disease
- Benefit must outweigh bleeding risk
  - Warfarin
  - Dabigatran
  - Apixaban
  - Rivaroxaban
Blood Pressure

- Treat BP >140/90

- Lifestyle modifications
  - Weight loss
  - Salt restriction
  - Regular exercise
  - Limit ETOH
Cholesterol Control

- Very high risk - LDL < 70
- High risk - LDL < 100

- Statins
  - Plaque stabilization, reducing inflammation, slowing carotid disease, improves endothelial function
  - Scant evidence for other lipid lowering drugs
  - Presumed atherosclerotic origin, but no preexisting indications for statin?
Carotid Endarterectomy

- Recommended within 6 months if 70-99% stenosis
  - Ideally within 2 weeks
- Must be ipsilateral to symptoms
- <50% stenosis, no surgery

- Intracranial-INVESTIGATIONAL!
Diet

- Mediterranean diet
  - Vegetables, fruits, whole grains, low-fat dairy, poultry, fish, legumes, olive oil and nuts
  - Limits sugars and red meats

- Hypertension?
  - Low sodium diet (<2400 mg per day)
Exercise

- Moderate to vigorous intensity most days of the week for at least 40 minutes
  - Break a sweat or noticeably raise heart rate
Prevention of Recurrent ICH

- BP control
  - $<130/80$

- Lifestyle modifications
  - 2 drinks or less per day
  - Smoking cessation
  - Avoid illicit drug use
  - Treat sleep apnea
Anticoagulation After Bleeds

- Lobar location-no
- Basal ganglia-maybe
- When to restart?
  - Uncertain (4-10 weeks)
- Newer agents
  - uncertain
- Antiplatelet
Post Stroke Depression
Neuropsychiatric Changes After Stroke

- Post-stroke depression (PSD) is the most common psychiatric change.
- Depression is the strongest predictor of poor quality of life after stroke.
Post-Stroke Depression

PSD is associated with cognitive impairment, increased mortality and risk of falls, increased disability, and worse rehabilitation outcome!!!
Approximately 1/3 of stroke survivors suffer from PSD

- Highest rates of depression are reported in the 1st month post stroke, may persist for years
- Subacute phase may be adjustment period

No significant difference between hemorrhagic and ischemic strokes
Risk Factors of PSD

- Pre-stroke history of depression
- Inadequate social support
- Level of disability (functional/cognitive)
- Gender prevalence: conflicting

- Overall, females are higher risk
  - Response bias?
Risk Factors for PSD

- Exact neuroanatomical mechanism is unknown
- Presumed disruption in amine pathways
- Location of stroke is controversial
Course of Post Stroke Depression

- ~40% develop symptoms within 3 months

- ~30% of non-depressed patients show signs of depression after hospital discharge

- At 6 months post stroke, majority of PSD patients continue to have symptoms
Associated with PSD...

- Poor social life
- Reduced quality of life
- Reduced rehabilitation treatment efficiency
- Increased mortality
- Increased falls
- Increased cognitive impairment
- Poor functional recovery
Location, Location, Location

- Not well understood
- All studies methodically flawed
- 2 meta-analyses
- Singh et al (1998) looked at 13 studies
  - 6 found no difference
  - 2 found right sided lesions more likely
  - 4 found left sided lesions more likely
Location, Location, Location

- Carson et al (2000) systematic review
- 48 studies
  - 38 found no difference
  - 2 found left sided lesions more likely
  - 7 found right sided lesions more likely
  - 1 reported increase risk with right parietal or left frontal
- Concluded that PSD is NOT affected by location
Diagnosing PSD

- Diagnosing PSD is challenging
  - Unrecognized
  - Undertreated

- Orthopedic patients with similar disabilities are less likely to be depressed
  - Argument against purely psychological explanation

- Anosognosia (60% in R CVA, 24% in L CVA) does not protect against PSD
Diagnosing PSD

- 5 or more of the following present for 2 week period and represent a change in function, 1 symptom must be either depressed mood or loss of interest
  - Depressed mood most of the time, for most days
  - Loss of interest/pleasure in activities
  - Significant weight loss/gain
  - Significant change in appetite
  - Insomnia/hypersomnia
  - Fatigue
  - Feeling worthless
  - Inappropriate guilt
  - Inability to think/concentrate
  - Thoughts of death/suicide
Diagnosing PSD

- Minor depression requires 3 or 4 symptoms, with at least 1 symptom being depressed mood or loss of interest for 2 weeks.

- Patients with major depression do better over time compared to patients with minor depression.
Assessment of PSD

- Clinical history of interview
- Information from family/caregivers
- Standardized screening measure
- Self-report standardized screening tool
  - Sensitive, but lack specificity
  - Somatic symptoms may play a role
  - Anosognosia
  - Physical/cognitive deficits maybe prohibitive
Treatment of PSD

- Choice of treatment is not conclusive
  - SSRIs
    - Improvement in functional recovery
      - Motor skills
      - More independence with ADLs
    - Improves depression
  - TCAs
    - Effective, but more side effects
Length of Treatment

No scientific evidence regarding the optimal length of treatment

- Most trials end at 6 weeks

AD treatment for 4-6 months

- Slow withdrawal
Other Common Mood Changes

- Anxiety
- Irritability/Aggression
- Perseveration (repeat behaviors or words)
- Apathy
- Emotional liability
- Disinhibition
- Impulsivity
Local Support Group

Through the Looking Glass
Lynchburg, VA
434-395-4951

Android App
AF-STROKE (FREE)
Tips for Caregivers, Family and Friends

- Feeling impatient, frustration, anger and resentment is normal
- Do not feel guilty or ashamed
- Reach out for help (counselor, psychologist, social worker)
- Do not take feelings out on patients/loved ones
  - It is not his or her fault
References


- http://www.stroke.org/we-can-help/survivors/stroke-recovery/first-steps-recovery/preventing-another-stroke


