NEUROLOGY
POTPOURRI

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MIGRAINES

(1) Use prevention therapy if >1 HA/wk
(2) Think of comorbidities with #1.
(3) Use triptans for acute migraine
(4) Avoid narcotics unless rescue
(5) Avoid Fioricet/Fiorinal
(6) Sprix (ketorolac NS) might also help acute migraine
DEMENTIA

• Alzheimer’s disease (AD) is the most common

• Affects 10% of people > 65; 33% at age 80; 50% at age 85

• Evaluate by H & P; Mini-Cog CDT; MMSE, neuropsychology testing
WARNING SIGNS OF ALZHEIMER’S DISEASE

- Memory loss affecting job skills
- Difficulty performing familiar tasks
- Language problems
- Disorientation to time and place
- Poor or decreased judgment

- Problems with abstract thinking
- Misplacing things
- Changes in behavior or mood
- Personality changes
- Loss of initiative
MINIMAL COGNITIVE IMPAIRMENT

• Pt with memory impairment not demented (not cognitively impaired; can do ADLs)

• Also known as MCI

• Evaluate regularly to see if they are advancing into AD

• 6-25% of MCI patients develop progress to dementia/AD in one year
DEMENTIA WORK-UP

• MRI of brain over CT brain is preferred

• CBC, CMP, B12, folate, free T4, TSH

• Depression screening; neuropsychology testing if needed

• RPR/FTA-ABS, HIV only if at risk
PROPER WORK UP FOR PERIPHERAL NEUROPATHY

1. History and Physical Exam
2. CBC, CMP, ESR, ANA, free T4, TSH, folate and B12 levels, SPE, SIE.
3. Other tests depending on history
4. Neurology Consult
5. EMG/NCV if necessary
Cardinal Features of Parkinson’s Disease

- Bradykinesia
- Postural instability
- Truncal rigidity
- Resting Tremor
Parkinson’s Disease Treatments

Carbidopa/levodopa

Dopamine Agonists

COMT inhibitors; MAO-B inhibitors

Amantadine and anticholinergics

Deep Brain Stimulator (DBS)
Anticholinergics

• Not used much today due to side effects (poor cognition, dementia)

• Great for treating Parkinson resting tremors

• Trihexyphenidyl (Artane) 2 mg TID is usual dose

• Used in psychiatry for tardive dyskinesias
Amantadine

• Amantadine 100 mg BID-TID
• Useful for postural instability (imbalance) in PD
• Helpful with PD tremors
• Has antiviral properties (flu prevention)
• Can be used for MS related fatigue; traumatic brain injury
• Biggest side effect is visual hallucinations
Dopamine Agonists

- Pramipexole and ropinirole are the most common ones used today
- Pramipexole (Mirapex): Available in regular (TID) and ER form
- Ropinirole (Requip): Available in regular (TID) and XL form
- Maximum dose of pramipexole is 4.5 mg daily
- Maximum dose of ropinirole is 24 mg daily
- Rotigotine patch (Neupro)—maximum dose is 8 mg/24 hours
- Rotigotine patch dose=ropinirole dose=1/4 for pramipexole dose
- Compulsive behaviors and hypersexuality notable side effects
COMT Inhibitors

- Entacapone (Comtan) 200mg is the most common one used
- Used to enhance effectiveness of carbidopa/levodopa
- Can’t be used without carbidopa/levodopa
- Give at same time as carbidopa/levodopa
- Orange colored urine is side effect
- Similar side effects as carbidopa/levodopa
- Ticlopidine 200 mg TID can be used, but aplastic anemia is risk
MAO-B Inhibitors

• Rasagiline (Azilect) and Selegilene (Eldepryl, Zelpar)
• Rasagiline 0.5 mg initially, then 1 mg q AM thereafter
• Rasagiline doesn’t raise BP; selegiline might raise BP due to amphetamine metabolites
• Neuroprotective?
• Can be used initially or adjuthcive in treatment of PD
• Interaction with SSRIs causing serotonin syndrome is theoretical!
What is Serotonin Syndrome?

- Agitation
- Restlessness
- Confusion
- Tachycardia
- Hypertension
- Dilated pupils
- Muscle rigidity, twitching muscles
- Diaphoresis, diarrhea, headache, shivering
Severe Serotonin Syndrome Signs & Symptoms

• High fever

• Seizures

• Cardiac arrhythmia (irregular heartbeat)

• Unconscious
How I Treat Parkinson’s Disease

- Exercise 30 minutes daily at least 5 days a week
- Over age 75: Carbidopa/levodopa ER 25/100 TID to start. Add entacapone later if needed before increasing carbidopa/levodopa. May use rasagline before instituting carbidopa/levodopa or later in therapy. Dopamine agonist? Amantadine if imbalance or bad tremors.
- Under age 75: Rasagline? Carbidopa/levodopa ER 25/100 TID to start. Add dopamine agonist. Push dopamine agonist to toxicity. Entacapone. Amantadine if imbalance or bad tremors. DBS?
- Movement disorder tertiary center?
Lewy Body Dementia (LBD)

- Sometimes classified as a dementia (ICD-10)

- Progressive cognitive decline with EPS

- Visual hallucinations early in disease are pathognomonic
Tourette’s Syndrome

• Developmental disorder that begins in childhood and teenage years
• Characterized by motor and vocal tics
• ADHD and OCD often accompany Tourette’s
• No cure, but there are treatments
• Treatments: haloperidol, pimozide, clonidine, behavioral therapy
Huntington’s Disease (HD)

• Genetic disorder causing breakdown of neurons in the brain, causing death 15-20 years after diagnosis
• Symptoms appear in ages 30-50, but can be earlier or later
• Chorea, abnormal body postures, behavioral changes, dementia, personality changes, dysarthria, dysphagia
• Caused by mutation in huntingtin gene that cause cytosine, adenine, and guanine (CAG) building blocks of DNA to repeat more times than normal. Each child of a parent with HD has a 50% chance of inheriting the HD gene.
• Treatment: tetrabenazine, deutetetabenazine for HD chorea
LEUKOARAIOSIS

ALSO KNOWN AS WHITE MATTER LESIONS

Differential:
- Normal > 65 years old
- HTN, DM
- Head trauma
- Migraine
- Lyme’s Disease
- Multiple Sclerosis
- HIV
SEIZURE VS. SYNCOPE

• Epilepsy is more than 2-5 seizures
• 50% of syncopal events are unknown
• 90% of known syncope is cardiac
• Seizure characteristics: Preictal, ictal, postictal, interictal
• Eyes OPEN during convulsion---SEIZURE
• Tongue biting---SEIZURE
• Incontinence---SEIZURE OR SYNCOPE
• EEG, ambulatory EEG, EMU helpful
SEIZURE WORK-UP

• MRI of brain is preferred study using seizure protocol
• EEG
• CT of brain with and without contrast if MRI cannot be done
• CBC, CMP, ionized calcium, magnesium, FBS, thyroid panel
• Drug screen, alcohol level if clinically relevant in office
• Start AED: Think co-morbidities
• Folate 1 mg daily in premenopausal females
• Folate 5 mg daily in pregnant women
WORKUP FOR TRANSIENT ISCHEMIC ATTACK (TIA)

1. CBC, CMP, TSH, free T4, ESR, ANA, homocysteine level, CRP, lipids, cardiac enzymes
2. MRI of Brain without contrast
3. EKG, Echo/TEE
4. Carotid doppler / MRA of neck & brain
5. EEG?
6. Antiplatlet therapy
7. Neurology Consult
8. Hospitalization?
Wrigley the Shih Tzu says:

“You can always request a NEUROLOGY CONSULT!”
THAT’S ALL FOLKS—GO NOLES!