Saint Alphonsus
A Member of Trinity Health

COGNITIVE CONCERNS AND DEMENTIA

Overview: Neurology; Brain Health Program; SAMG Memory Center (Geriatrics)
Memory concerns are commonly encountered in clinical practice and can have several different etiologies, with some patients have more than one factor at play. In addition to neurodegenerative conditions, comorbid systemic illness, medications, and cerebrovascular disease can impact cognition. Mood disorders such as depression can affect performance on cognitive testing resulting in a so-called pseudo-dementia. Neurology and Geriatrics work collectively- First step is Geriatrics for intake H & P and initial cognitive testing for screening.

Workup:

In-office testing of cognition
- MOCA
- MMSE
- SLUMS

Standard Laboratory evaluation
- B12 (should be >400 pg/ml regardless of laboratory cutoff)
- MMA (can check to ensure B12 stores are functionally sufficient; should be non-elevated)
- TSH
- CBC
- CMP
- A1c
- Folate

Imaging
Patients with unexplained cognitive symptoms should undergo some type of neuroimaging. A reasonable choice is an MRI of the brain.

Diagnostic Testing: includes Bioserum markers and CSF testing

Evaluation for sleep apnea
Undiagnosed/untreated sleep apnea is a common cause/contributor to cognitive symptoms. Testing for sleep apnea should be considered in patients presenting with cognitive symptoms, particularly if there is a history of daytime fatigue/somnolence, snoring, or witnessed apneas and/or if the patient has risk factors such as obesity or high Mallampati score.

Neuropsychiatric testing
Though not always performed, this can be helpful, particularly if there is a question of whether cognitive symptoms are due to a degenerative process or some other condition such as depression.

Review of Medications:
There are many classes of medications that can negatively impact cognition and are important to recognize in patients with cognitive symptoms

- anticholinergics: eg. diphenhydramine, hydroxyzine, TCAs, paroxetine, cyclobenzaprine, trihexyphenidyl, benztropine, amantadine, oxybutynin (NB: solifenacin, darifenacin, and trospium have limited blood brain penetration and are preferred if an anticholinergic bladder medication is to be used)
- sedative/hypnotics: eg. benzodiazepines, barbiturates, zolpidem et al.
- opioids
- muscle relaxants: eg. baclofen, tizanidine, metaxolone, methocarbamol
- antiseizure medications: eg. topiramate, valproate, carbamazepine, gabapentin

Treatment:
If a primary neurodegenerative disorder is suspected, it is reasonably to start a medication for cognition. Typically, the first medication started is an acetylcholinesterase inhibitor. These are generally well tolerated but can be associated with side effects of diarrhea/stomach upset and vivid dreams/nightmares (try morning dosing for the latter). Cholinesterase inhibitors can cause bradycardia and are also QT prolonging; particularly for patients already on a QT-prolonging medications, an EKG should be checked before starting. Examples of cholinesterase inhibitors and their dosing are detailed below.

- Donepezil: start at 5 mg once daily at night x 1 month then increase to 10 mg
- Rivastigmine
    - Oral: 1.5 mg po bid, increase by 1.5 mg/dose every 2 weeks as tolerate; max of 12 mg daily. Give with food
    - Patch: start at 4.6 mg every 24 hours x 1 month. Increase to 9.5 mg x 1 month then 13.3 mg if needed
        - Indication: if diarrhea occurs with an oral cholinersterase inhibitor

- Galantamine:
    - Immediate release: start 4 mg po bid, increase 4 mg bid every four weeks to 12 mg bid as needed
    - Extended release: start at 8 mg ER po qam, increase by 8 mg every four weeks if needed to a maximum of 24 mg/day

For patients already on or intolerant of a cholinesterase inhibitor and for whom an Alzheimer's type dementia of at least moderate severity is suspected, the NMDA receptor antagonist memantine can be considered. This medication is generally well tolerated with dosing detailed below.

- Memantine: start at 5 mg once daily. Can increase by 5 mg weekly to a max of 10 mg twice daily

In addition to the above, we encourage all our patients to remain physically active as well as mentally and socially engaged, all of which can benefit cognitive functioning and quality of life.

Driving:
This can be a sensitive topic for patients, and it can be difficult for them to give up this important element of their independence. We emphasize the importance of keeping patients and others on the road safe. If there is any concern about the patient's ability to drive, we recommend an on-road driving evaluation. This can be completed through Idaho Elks occupational therapy or at the DMV (the cheaper option of the two).

When and where to refer:
We are always happy to see patients with cognitive concerns at the Saint Alphonsus neurology clinic and a referral to us should always be made if there are additional neurological deficits, an otherwise atypical presentation, and/or a rapid progression. Unfortunately, there are some services which we are not set up to provide, particularly as it relates to social work and advanced planning. For this reason, a referral to geriatrics clinic is a good place to start so screening and initial resources can be accessed. If you are not sure where best to refer, don't worry, many patients initially seen in neurology clinic are subsequently referred to geriatrics clinic and vice versa to make sure they are getting all the care and support that they require.