Major Neurocognitive Disorder (MND): DSM-5 Differential Diagnosis

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Introduction: In this fact sheet, we review the basic DSM-5 criteria for diagnosing major neurocognitive disorder (MND), and review the characteristics of the various subtypes of dementia. For our clinical approach to rapidly assessing for dementia, see the How to Diagnose MND.

DSM-5 Criteria

In order to diagnose MND you have to establish significant decline in at least one of the following neurocognitive domains:

- **Learning and Memory**: Difficulty recalling events or information, especially acquiring and retrieving new information.
- **Complex Attention**: Reduced ability to sustain focus, filter distractions, manipulate information, reduced processing speed.
- **Social cognition**: Difficulty reading social cues and behaving appropriately, sometimes called "personality changes".
- **Perceptual-Motor Skills**: Difficulty interpreting visual information, impaired ability to coordinate movements, apraxia.
- **Language Skills**: Deficits in speaking, comprehending spoken or written language, reading, or writing, eg., various forms of aphasia.
- **Executive Functions**: Challenges with planning, organizing, initiating, and executing tasks; problems with reasoning and judgment.

Subtypes of MND: Recognizing the Patterns

While it is useful to understand the subtypes of dementia, keep in mind that by far the majority of patients with MND have "mixed dementia", which is usually a combination of Alzheimer's and vascular dementia.

1. **Alzheimer's Disease**: *Prevalence*: About 70-80% of all dementias, and affects about 10% of people over 65. *DSM criteria*: Gradual and steady decline, with the key symptoms being memory impairment. *Diagnostic tips:* Generalized cerebral atrophy on MRI, amyloid beta deposits on PET scans. *Treatment tips*: Start with cholinesterase inhibitors.
2. **Vascular Neurocognitive Disorder**: *Prevalence*: About 10-15% of all dementia. *DSM criteria*: Symptoms of dementia plus neurological signs/symptoms of cerebral vascular problems, such as strokes or blood vessel abnormalities. *Diagnostic tips*: Symptoms correlate temporally with vascular events. An MRI typically reveals evidence of infarcts or white matter ischemic lesions. Suspect in dementia patients with hypertension, diabetes, or high cholesterol. *Treatment tips*: In addition to standard dementia meds, encourage comprehensive treatment of hypertension and atherosclerosis.
3. **Frontotemporal Dementia**: *Prevalence*: 5-10% of dementias, more common in men. *DSM criteria*: Gradual decline in social functioning and behavioral problems in the absence of significant memory impairment. *Diagnostic tips*: Patients exhibit major "personality changes" such as becoming abruptly angry, making inappropriate jokes, or other examples of behavioral disinhibition. MRI usually reveals atrophy in the frontal and temporal lobes. Treatment tips: Consider SSRIs to curb impulsivity, also low dose quetiapine.

4. **Dementia with Lewy bodies**: *Prevalence*: About 5% of dementias. *DSM criteria*: At least two of the following: Fluctuating cognition, recurrent visual hallucinations, parkinsonian features (eg., bradykinesia, rigidity, resting tremor). *Diagnostic tips:* REM sleep behavior disorder may occur; severe side effects to neuroleptics is a clue; cognitive impairment occurs before parkinsonism (as opposed to Parkinson's disease, in which motor symptoms occur before cognitive symptoms). *Treatment tips*: Consider pimavanserin or low-dose quetiapine or clozapine for psychosis.