# نحوه برخورد با خانم ۵۸ ساله با شکایت اختلال شناختی پیشرونده در درمانگاه پزشکی خانواده

ارایه دهنده: انصاری فرد کارورز پزشکی خانواده استاد راهنما: استاد شفیعی ثابت

## شرح حال اوليه بيمار

بیمار خانم ۵۸ساله ، چپدست ، با ۱۲سال تحصیلات با شکایت اختلال علائم شناختی به صورت پیشرونده از ۴ سال قبل مراجعه کرده است. علائم اولیه شامل:

مشکل در به خاطر آوردن وقایع و اطلاعات اخیر

مشکل در حفظ تمرکز

مشکل در یادگیری کارهای جدید

او بارها نسبت به زمان دچار سردرگمی میشد؛ برای مثال، نیمهشب لباس میپوشید و فکر میکرد صبح شده است. در یافتن کلمات و بیان افکارش مشکل داشت و دایره لغات او کاهش یافته بود.

## شرح حال اوليه بيمار

در مصاحبه بالینی اولیه مشخص شد که او بهتدریج از خانواده و دوستان کناره گیری کرده است در یک سال قبل از مراجعه به مرکز ما، علائم نوروسایکیتریک متعددی پیدا کرده بود از جمله افسردگی اضطراب و توهمات بینایی مکرر و واضح از افراد غریبه در خانهاش

او احساس تهدید نمی کرد و آگاهی داشت که دیگران این افراد را نمی بینند

سه سال قبل از مراجعه بهعنوان دستیار اداری کار میکرد اما به دلیل علائم شناختی نتوانست شغل جدیدی پیدا کند اخیراً همسرش مسئولیت مدیریت داروها، خرید و برنامهریزی و آمادهسازی وعدههای غذایی را بر عهده گرفته بود ... او هنوز گهگاهی رانندگی میکند و صبحانه را خودش آماده میکند ..

همچنین در فعالیتهای روزانه ابتدایی (حمام کردن، لباس پوشیدن، غذا خوردن، توالت رفتن و حرکت) مستقل مانده بود

## سابقه خانوادگی:

. مادر و پدر او به ترتیب تا دهه ۷۰و ۸۰عمر کردند و بر اثر سرطان درگذشتند، بدون هیچ سابقهای از دمانس . یکی از خالههای مادری که در دهه ۷۰عمر فوت کرد، از اواخر دهه ۵۰ زندگی دچار اختلال شناختی پیشرونده شده بود

## **DEFINITIONS**

- Dementia (now termed "major neurocognitive disorder" in DSM-5) is defined as a progressive decline in one or more cognitive domains (memory, executive function, attention, language, visuospatial, or social cognition) sufficient to interfere with independence in everyday activities.
- Normal aging: mild forgetfulness without functional loss.
- Mild cognitive impairment (MCI): measurable decline without functional impairment

## DSM 5 CRITERIA FOR DEMENTIA

### DSM-IV and DSM-5 criteria for dementia

DSM-IV criteria for dementia	DSM-5 criteria for major neurocognitive disorder (previously dementia)	
A1. Memory impairment	<b>A.</b> Evidence of significant cognitive decline from a previous level of performance in one or	
A2. At least one of the following:	more cognitive domains*:	
- Aphasia	- Learning and memory	
- Apraxia	- Language	
- Agnosia	- Executive function	
- Disturbance in executive functioning	- Complex attention	
	- Perceptual-motor	
	- Social cognition	
<b>B.</b> The cognitive deficits in A1 and A2 each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning.	<b>B.</b> The cognitive deficits interfere with independence in everyday activities. At a minimum, assistance should be required with complex instrumental activities of daily living, such as paying bills or managing medications.	
C. The cognitive deficits do not occur exclusively during the course of delirium.	<b>C.</b> The cognitive deficits do not occur exclusively in the context of a delirium.	
	<b>D.</b> The cognitive deficits are not better explained by another mental disorder (eg, major depressive disorder, schizophrenia).	

For diagnostic criteria of dementia subtypes such as Alzheimer disease or frontotemporal dementia, please refer to UpToDate topics on the clinical manifestations and diagnosis of individual dementia subtypes.

DSM: Diagnostic and Statistical Manual of Mental Disorders.

\* Evidence of decline is based on concern of the individual, a knowledgeable informant, or the clinician that there has been a significant decline in cognitive function and a substantial impairment in cognitive performance, preferably documented by standardized neuropsychological testing or, in its absence, another quantified clinical assessment.

## DEMENTIA IS A SYNDROME WITH MULTIPLE ETIOLOGIES:

## 1. Neurodegenerative diseases (most common)

Alzheimer disease (AD)

Lewy body dementia (DLB)

Frontotemporal dementia (FTD)

Parkinson's disease

Dementia Huntington's disease (HD)

## 2. Vascular dementia (VaD)

Due to multi-infarcts, strategic infarcts, or small vessel disease.

Often with stepwise progression.

### 3. Reversible causes "dementia mimics"

Delirium (acute/subacute course, impaired attention)

Depression ("pseudodementia")

Medication-induced cognitive impairment (anticholinergics, opioids, benzos)

Metabolic/endocrine: hypothyroidism, B12 deficiency, hypercalcemia

Infections: HIV, syphilis

Normal pressure hydrocephalus (NPH)

### 4. Other less common causes

Prion disease (CJD)

Autoimmune/paraneoplastic encephalitis

Traumatic brain injury, chronic subdural hematoma.

# QUESTIONS: WHAT ARE THE DIAGNOSTIC CONSIDERATIONS BASED ON THE HISTORY? IS THIS PRESENTATION SUGGESTIVE OF AD? WOULD ADDITIONAL HISTORY BE HELPFUL?

- Insidious onset and gradual progression of cognitive symptoms over the course of 4 years raises concern for a neurodegenerative disorder. aspects of the patient's history suggesting changes in episodic memory, attention, executive function, and word retrieval could suggest a multidomain, amnesic syndrome as frequently occurs in the context of AD neuropathology.
- However, recurrent, well-formed visual hallucinations are very uncommon with isolated AD neuropathology and suggestive of contributions from Lewy body disease (LBD) neuropathology, as occurs in association with syndromic dementia with Lewy bodies (DLB), Parkinson disease (PD), or PD with dementia (PDD).
- It would be useful to know whether this patient has additional history indicating other core clinical features of a DLB syndrome, including fluctuating cognition with pronounced variations in attention and alertness; REM sleep behavior disorder (RBD), suggested by dream enactment behaviors; and motor symptoms potentially reflecting parkinsonism. Instruments such as the Mayo Fluctuations Scale and the Queen Square

# QUESTIONS: WHAT ARE THE DIAGNOSTIC CONSIDERATIONS BASED ON THE HISTORY? IS THIS PRESENTATION SUGGESTIVE OF AD? WOULD ADDITIONAL HISTORY BE HELPFUL?

## Additional history revealed that the

patient's husband observed her to have periods of being in a "trance-like" state, as well as drowsiness and an increased tendency to sleep in the daytime. She was noted to have recurrent episodes of "acting out her nightmares," at times kicking and screaming, dating back to the onset of her cognitive symptoms. Her walking had slowed, and her voice had become softer. She was slower and less coordinated when using her hands, her handwriting became smaller, and she developed intermittent tremors of her hands and arms when using them. She experienced constipation with increasing frequency and severity.

# QUESTIONS: WHAT ARE THE DIAGNOSTIC CONSIDERATIONS BASED ON THE HISTORY? IS THIS PRESENTATION SUGGESTIVE OF AD? WOULD ADDITIONAL HISTORY BE HELPFUL?

## A. History

Onset and progression: Insidious and progressive decline suggests Alzheimer's disease (AD) or frontotemporal dementia (FTD); stepwise course suggests vascular dementia (VaD); acute or fluctuating course points to delirium.

Functional impact: Ask about instrumental activities of daily living (IADLs) (finances, medication management, shopping, driving). Impairment of IADLs precedes decline in basic ADLs.

Neuropsychiatric symptoms: Screen for apathy, depression, hallucinations, agitation, and sleep disturbance.

Family history: Neurodegenerative disorders, vascular risk factors (HTN,HLP,DM,...)

Medication review: Exclude deliriogenic medications (anticholinergics, opioids, benzodiazepines, steroids, H2 blockers)

- In the context of a history highly suggestive of DLB, one can increase diagnostic confidence by establishing a suggestive neuropsychological profile or by confirming features of parkinsonism on examination. DLB is frequently associated with early impairments in attention, executive function, and visuospatial processing.
- To assess parkinsonism, including assessment of speech, facial expression, rigidity, finger tapping, hand movements (opening and closing), hand pronation-supination, toe tapping, leg agility (foot stomping), arising from chair, gait, posture, postural stability, global spontaneity of movement, and presence or absence of postural, kinetic, or rest tremors of the hands.
- PD syndrome is more likely to be associated with typical parkinsonism, i.e., early asymmetrical "pill-rolling" resting tremor, limb bradykinesia and rigidity that tend to be responsive to levodopa, and minimal to no early postural Instability.

• Although typical parkinsonism can occur in DLB, atypical features occur more frequently, including the absence of resting tremor, the presence of postural-kinetic or mixed tremor, less prominent and more symmetrical early bradykinesia and rigidity, more prominent early postural instability, and reduced responsiveness to levodopa. Despite these distinctions, it is noteworthy that all symptomatic features of DLB can occur in PDD and vice versa, with the arbitrary distinguishing feature between the syndromes being whether cognitive dysfunction develops prior to or concurrently with parkinsonism (as in DLB and as was observed in this patient) or following parkinsonism (as in PDD). Considering PD, PDD, and DLB as syndromes under the umbrella term "Lewy body disorders" allows for variability in presentations along a spectrum, from individuals with predominantly motor symptoms to those with predominantly cognitive symptoms.

- This patient's mental status examination revealed grossly apparent psychomotor slowing. She scored a 24/30 on the Mini-Mental State Examination, missing 2 points on orientation to year and day of the week, 2 points on the three-item delayed word recall test (obtaining both with a category cue), and 1 point for poor pentagon copy. She was given a subset of the Hooper Visual Organization Test, on which she correctly identified seven of 13 objects represented in line drawings as puzzle pieces (suggesting a moderate level of visuospatial impairment).
- On elemental neurological examination, the patient had hypomimia, saccadic intrusions during smooth-pursuit eye movements, and slow, hypophonic speech.
- Strength was full in the proximal and distal muscles of the arms and legs. There was a postural-kinetic tremor of both hands, mild left-greater-than-right bradykinesia apparent on finger tapping and hand movements, and mild left-greater-than-right cogwheel rigidity in the arms. She rose from a chair easily, without the use of her arms. Her gait was mildly slow, with a narrow base and left-greater-than-right reduced arm swing. There was no retropulsion on pull testing.
- Taken together, these examination results provided additional support for a DLB syndrome. The cognitive examination, though limited and nonspecific, provided some evidence of slow processing speed, impaired memory (at least at the level of retrieval), and visuospatial dysfunction. The motor examination provided unequivocal evidence of parkinsonism,
- some features that were typical, such as asymmetrical limb bradykinesia and cogwheel rigidity, and other features that were atypical, such as postural-kinetic tremor of the hands.

## B. Physical and Neurologic Examination

General exam: Identify systemic contributors (thyroid disease, infection, metabolic).

## **Neurologic signs:**

Focal deficits (hemiparesis, aphasia, hemianopia) → vascular dementia.

Parkinsonism (rigidity, tremor, bradykinesia) → dementia with Lewy bodies or Parkinson's disease dementia.

Gait disturbance: "magnetic gait" suggests NPH; ataxia may point to cerebellar or prion disease.

**MSE**: Agreement between the history and the mental status examination is strongly suggestive of the diagnosis of dementia.

Bedside cognitive testing: Orientation, attention, memory, language, praxis.

### تست M.M.S.E



ميزان تحصيلات: سن بيمار: نام یزشک معاینه: تاريخ معاينه

کلمات بایستی آهسته و همچنین با صدای بلند برای معاینه شونده، خوانده شود.

کلمه یا اصطلاح جانشین در داخل پرانتز نوشته شده است. باید بیمار به تنهایی در اتاق معاینه، ویزیت شود و همچنین بایستی پزشک و بیمار از زبان گفتاری یکسانی برخوردار باشند.

اگر پاسخ غلط داده شد دور عدد صفر و اگر پاسخ صحیح داشته، دور عدد یک دایره بکشید.

- من مىخواهم سوالاتى در مورد حافظه شما بپرسم. ممكنه؟
  - آیا شما با حافظه خود مشکلی دارید؟

آگاهی به زمان	پاسخ		ORE
امسال چه سالی است؟		•	١
چه فصلی است؟		•	١
چه ماهی از سال است؟		•	١
چه روزی از هفته است؟		•	١
تاریخ را بگو		•	١
آگاهی به مکان			
ما الان كجا هسيتم؟		•	١
نام استان، نام شهر، شهرس		•	١
نام كشور			١
نام بیمارستان لارمانگاه (نوع یا اسم،		•	١
(شماره اتاق بانشانی) طبقه چندم ساخ			١



### يادآوري:

با دقت گوش کنید. من سه کلمه خواهم گفت. شما بعد از این که من سه کلمه را گفتم تکرار کن. آمادهاید؟ مثال: سیب (مکث)، سکه ( مکث)، میز (مکث). حالا این کلمات را پس از من تکرار کنید.(اما نمره کامل در اولین نوبت تکرار

حالا لغت را به ذهن خود بسپار. من چند دقیقه دیگر مجدداً از شما خواهم پرسید.

### توجه و محاسبه:

معمولاً ۳- ۴ دقیقه بعد مجدداً سوال شود و به ازای هر پاسخ ۱ نمره در نظر گرفته شود.

- حالا من علاقه دارم که شما از عدد ۱۰۰، ۷تا ۷ کم کنی تا موقعی که من بگویم کافی است. اگر از ۱۰۰، ۷تا برداری چند میشود؟ ادامه بده ◄—اگر لازم بود بگویید ادامه بده ◄---اگر لازم بود بگویید ادامه بده → اگر لازم بود بگویید

ادامه بده → اگر لازم بود بگویید

اگر بیمار نمی تواند سؤال بالا را پاسخ بدهد، به جای آن از دستور زیر استفاده کنید. لغت *"گلدان"* را به صورت وارونه هجی کنید. (نادلگ)

> اگر از اول به آخر در هجی کردن اشتباه داشت آنرا اصلاح کنید. ولی فقط در صورتی نمره می گیرد که بتواند از آخر به اول هجی کند.



- از آن سه کلمهای که قبلاً گفتم کدام را به خاطر می آورید؟ (هیچ ایما و اشارهای در کار نباشد.)

این چیست؟ (اشاره به یک خودکار یا مداد)

این چیست؟ (اشاره به ساعت مچی)

الان من به شما یک جمله می گویم و از شما می خواهم که آن را تکرار کنی، آمادهای؟

تا ۵ بار جمله را تکرار کنید ولی در صورت پاسخ دهی در بار اول امتیاز کامل می گیرد.

(یک جمله بدون معنا) تاجر توچه تجارت میکنی بدون اگر و یا اما

با دقت گوش کن. من میخواهم به شما بگویم که کارهایی را انجام بدهید.

این کاغذ را با دست راست خود بردارید ( مکث) و آن را روی کف زمین (روی میز) قرار دهید.

با دست راست بگیرید

آن را از وسط تا کنید.

آن را کف زمین (روی میز) قرار دهید.

این جمله را بخوانید و کاری را که خواسته انجام دهید.

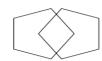
جمله (چشمانتان را ببندید) را که روی کاغذ نوشته شده به بیمار نشان دهید.

- لطفأ یک جمله بنویس. اگر چیزی ننوشت، شما بگویید: پس در مورد وضع هوا بنویس.

یک قطعه کاغذ به بیمار بدهید و سپس یک مداد یا خودکار هم به او بدهید. اگر جمله با محتوا و با مفهوم نوشت به او یک نمره بدهید (یعنی فعل و فاعل داشته باشد) از اشتباهاتی که در گرامر یا هجی داشته اند صرفنظر کنید.

این را کپی کن. (دو پنج ضلعی متقاطع را بکش.)

DRAWING



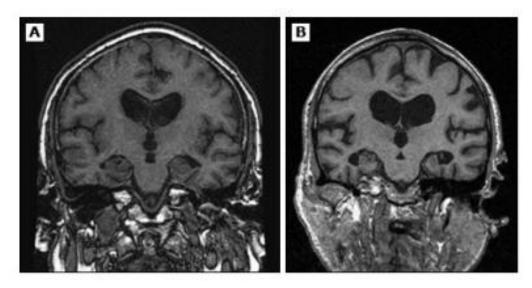
### QUESTION: WHAT INITIAL TESTS AND STUDIES ARE INDICATED?

Structural neuroimaging of the brain, preferably with MRI, is a recommended component in the initial evaluation of suspected dementia. When specific neurodegenerative causes of dementia are under consideration, imaging serves at least two purposes. First, it helps to assess for evidence of alternative (nondegenerative) conditions that might account for or contribute to symptoms. Second, it helps to assess for atrophy in a topographical distribution suggestive of a neurodegenerative syndrome and/or neuropathology, which can be useful in cases with possible underlying AD or frontotemporal lobar degeneration (FTLD) neuropathological changes.

## **NEUROIMAGING**

In a case such as this one, with features suggesting a DLB syndrome, imaging can be useful to assess for alternative causes of parkinsonism, such as vascular disease. While relative preservation of medial temporal lobe (MTL) regions on structural neuroimaging represents a supportive biomarker for DLB, evidence of MTL atrophy does not preclude a diagnosis of DLB, particularly considering that a DLB clinical syndrome may be associated with mixed LBD and AD neuropathological changes.

# MRI appearance of dementia with Lewy bodies compared with Alzheimer disease



Thin section coronal T1-weighted images from a 61-yearold male with pathologically proven DLB (A) and a 69-yearold male with AD (B). There is relative preservation of the medial temporal lobes and hippocampal structures in the patient with DLB as compared with the patient with AD.

AD: Alzheimer disease; DLB: dementia with Lewy bodies; MRI: magnetic resonance imaging.

### QUESTION: WHAT INITIAL TESTS AND STUDIES ARE INDICATED?

- In cases of suspected DLB with profound fluctuations in attention, focal dyscognitive seizures are included in the differential diagnosis. Here, an EEG can be useful to distinguish between epileptiform activity (which is consistent with seizures) and prominent posterior slow-wave activity with periodic fluctuations in the pre-alpha/theta range (which is another supportive biomarker for DLB).
- Otherwise, a standard laboratory evaluation including comprehensive metabolic profile (CMP), vitamin B12 level, TSH, and complete blood counts (CBC) would add value in screening for potential contributing factors.
- This patient's MRI, demonstrated a mild degree of T2 hyper-intense signal changes in the periventricular, subcortical and juxtacortical white matter. There was no diffusion restriction, evidence of atrophy, or abnormal enhancement. A routine EEG demonstrated "mild intermittent bitemporal irregular slowing with no focal or generalized epileptiform features."
- There were no pertinent lab result abnormalities.

### QUESTION: WHAT INITIAL TESTS AND STUDIES ARE INDICATED?

## C. Laboratory Work-up

Mandatory: CBC, electrolytes, renal/liver function, TSH, vitamin B12.

As indicated: syphilis, HIV serology.

Rule out reversible contributors (anemia, hypoxemia, metabolic).

- D. Neuroimaging with a head computed tomography (CT) or MRI scan is unequivocally indicated in patients with acute onset of cognitive impairment and/or rapid neurologic deterioration. Neuroimaging is also indicated when there are historical features or findings on physical examination suggestive of a subdural hematoma, thrombotic stroke, cerebral hemorrhage, or another structural lesion. The more routine use of neuroimaging in patients with dementia is controversial.
- In most cases, MRI is preferred over CT because it is more sensitive for a broad range of potential pathologies while avoiding exposure to potentially harmful ionizing radiation.

## QUESTION: ARE ADDITIONAL TESTS AND STUDIES INDICATED?

- Given the presence of all four core clinical features, (fluctuating cognition, visual hallucination, REM sleep behavior disorder, parkinsonism)
- multiple supportive clinical features (constipation, anxiety, and depression), and a supportive biomarker (relative preservation of MTL structures on MRI) for DLB in this case, there was no strong rationale to obtain additional data to confirm the diagnosis.

# Revised criteria for the clinical diagnosis of dementia with Lewy bodies (DLB)

Probable DLB	<ul> <li>2 or more core clinical features of DLB are present, with or without indicative biomarkers; or</li> <li>Only 1 core clinical feature is present, but with 1 or more indicative biomarkers</li> <li>Probable DLB should not be diagnosed on the basis of biomarkers alone</li> </ul>
Possible DLB	<ul> <li>Only 1 core clinical feature of DLB is present, with no indicative biomarker evidence; or</li> <li>1 or more indicative biomarkers are present, but there are no core clinical features</li> </ul>
DLB is <b>less likely</b>	<ul> <li>In the presence of any other physical illness or brain disorder including cerebrovascular disease, sufficient to account in part or in total for the clinical picture*</li> <li>If parkinsonian features are the only core clinical feature and appear for the first time at a stage of severe dementia¶</li> </ul>

Essential features	Dementia <sup>∆</sup>
Core clinical features (the first 3 typically occur early and may persist throughout the course)	<ul> <li>Fluctuating cognition with pronounced variations in attention and alertness</li> <li>Recurrent visual hallucinations that are typically well formed and detailed</li> <li>REM sleep behavior disorder, which may precede cognitive decline</li> <li>One or more spontaneous cardinal features of parkinsonism (bradykinesia, rest tremor, rigidity)</li> </ul>
Supportive clinical features	<ul> <li>Severe sensitivity to antipsychotic agents</li> <li>Postural instability</li> <li>Repeated falls</li> <li>Syncope or other transient episodes of unresponsiveness</li> <li>Severe autonomic dysfunction (eg, constipation, orthostatic hypotension, urinary incontinence)</li> <li>Hypersomnia</li> <li>Hyposmia</li> </ul>
	<ul><li>Hallucinations in other modalities</li><li>Systematized delusions</li><li>Apathy, anxiety, and depression</li></ul>
Indicative biomarkers	<ul> <li>Reduced dopamine transporter uptake in basal ganglia by SPECT or PET</li> <li>Abnormal (low-uptake) <sup>123</sup>iodine-MIBG myocardial scintigraphy</li> <li>Polysomnographic confirmation of REM sleep without atonia</li> </ul>
Supportive biomarkers	<ul> <li>Relative preservation of medial temporal lobe structures on CT/MRI scan</li> <li>Generalized low uptake on SPECT/PET perfusion/metabolism scan with reduced occipital activity ± cingulate island sign on FDG-PET imaging</li> <li>Prominent posterior slow-wave activity on EEG with periodic fluctuations in the pre-alpha/theta range</li> </ul>

## QUESTION: IS GENETIC TESTING INDICATED?

Experts do not recommend routine clinical genetic testing for patients with DLB or patients with AD who lack a family history suggesting autosomal-dominant inheritance.

- Because many different types of symptoms can arise in the context of DLB, it is helpful to take a systematic approach to therapeutic planning by reviewing the nature and severity of disease impact on cognition, neuropsychiatric health (e.g., mood, anxiety, and psychosis), sleep, motor function, and autonomic function. Considering the impact of symptoms within each of these domains on the patient's quality of life and ability to carry out intended activities helps to identify and prioritize targets for pharmacological intervention.
- Additional research is needed to establish stronger evidence for many symptomatic treatments.
  Importantly, nontrivial symptomatic benefits can frequently be obtained from discontinuing and avoiding non-essential medications with anticholinergic or dopamine receptor—blocking properties. Neuroleptic medications in particular should be avoided, given their propensity to precipitate severe, potentially life-threatening reactions.

- At the time of referral, the symptoms with the greatest impact on this patient's level of function and quality of life were those involving her cognitive function, mood, anxiety, and sleep. Although meaningful in terms of diagnosis, the patient's formed visual hallucinations and motor symptoms were not causing significant distress at presentation and therefore did not warrant pharmacological treatment.
- Evidence from randomized controlled trials and meta- analyses supports the efficacy of cholinesterase inhibitors for cognitive and potentially for neuropsychiatric symptoms (including anxiety, delusions, and hallucinations) in DLB patients. Rivastigmine and donepezil have been studied more extensively than galantamine, and the results with rivastigmine and donepezil have been comparable. Either would be a reasonable choice for this patient, with monitoring for sleep-related and gastrointestinal side effects.

- No systematic studies of antidepressants or anxiolytics have been conducted for treatment of depression or anxiety among patients with DLB. SSRI and SNRI, such as sertraline, escitalopram, and venlafaxine, may provide benefit, although they should be used carefully (i.e., "start low and go slow") given their potential to cause or exacerbate gastrointestinal and sleep-related problems in this population. Patients with treatment-refractory depression may benefit from RTMS.
- In cases of RBD involving frequent, disruptive, or injurious behaviors, melatonin is often well tolerated and effective in reducing dream enactment behaviors. Standard practice is to start at 3 mg or 5 mg and to titrate weekly in increments of 3 mg or 5 mg as needed, up to 15 mg to 18 mg nightly. Clonazepam may be used as a second-line treatment in severe cases; however, the potential to exacerbate cognitive dysfunction and obstructive sleep apnea should be noted.

- This patient was started on rivastigmine, titrated from 1/5 mg daily to 6 mg daily after 1 month, and there were notable reductions in her visual hallucinations and fluctuations in attention and alertness. She did not tolerate a further increase in dose on account of insomnia.
- She derived a moderate benefit from melatonin 6 mg nightly, with respect to reducing dream enactment behaviors.
- Sertraline started, was effective in reducing her anxiety at a dose of 50 mg daily.
- Insomnia, initially nonresponsive to medications, including trazodone and mirtazapine, improved later with an increase in the dose of melatonin to 15 mg nightly.

## Differential diagnosis of memory loss

Symptom	Usual cause	Examples
Gradual onset of short-term memory loss (ie, loss of memory for recent events) and functional impairment in more than 1 domain:  I. Executive function (finances, shopping, cooking, laundry, transportation)  II. Basic activities of daily living (feeding, dressing, bathing, toileting, transfers)	Dementia	Alzheimer disease, Parkinson dementia, Lewy body dementia, frontotemporal dementia, alcohol- related dementia, Creutzfeldt-Jakob disease
Stepwise, sudden deterioration in cognition; episodes of confusion, aphasia, slurred speech, focal weakness	Cerebrovascular disease	Vascular dementia, multi-infarct dementia, Binswanger dementia (subcortical dementia)
Acute cognitive impairment with clouded sensorium; difficulty with attention; may have hypersomnolence	Delirium	Hypo- or hyperglycemia, hypo- or hypernatremia, hypoxemia, anemia, intermittent cerebral ischemia, thyrotoxicosis, myxedema, alcohol withdrawal, sepsis, drugs (especially cholinergics, benzodiazepines, opioids, etc)
Complains of memory loss, decreased concentration, impaired judgment, feels worse in morning and hopeless	Depression	Minor depression, dysthymic disorder, major depression, pathologic grief reaction

## سطوح پیشگیری

**Primordial Prevention** 

**Primary Prevention** 

**Secondary Prevention** 

**Tertiary Prevention** 

**Quaternary Prevention** 

## **Primordial Prevention**

پی شگیری از ای جاد ری سک فاکتورهای دمانس در سطح جامعه و قبل از شکل گیری عوامل خطر:

ترویج سبک زندگی سالم از جوانی (فعالیت بدنی منظم، تغذیه سالم، خواب کافی ارتقای سطح آموزش و سواد سلامت( cognitive reserve بالاتر ریسک دمانس رو کم میکند) سیاستهای بهداشت عمومی برای کاهش فشارخون و دیابت در جامعه

## **Primary Prevention**

کاهش ریسک واقعی بیماری در فرد سالم یا پرخطر:

كنترل فشار خون، ديابت، ديسليپيدمي.

پرهیز از مصرف دخانیات و الکل.کاهش وزن و پیشگیری از چاقی.

فعالیت شناختی و اجتماعی مداوم (مطالعه، حل جدول، تعاملات اجتماعی).

پیشگیری از ضربههای مکرر به سر (ایمنی شغلی)

## **Secondary Prevention**

تشخیص زودهنگام بیماری در مراحل اولیه یا بدون علامت آشکار:

غربالگری شناختی با تستهایی مثل MMSEیا MoCA در افراد پرخطر.

شناسایی و درمان زودهنگام MCIبرای کاهش سرعت پیشرفت به دمانس.

بررسی علل برگشتپذیر cognitive impairment کم کاری تیروئید، افسردگی، عوارض دارویی، کمبود

## **Tertiary Prevention**

کاهش عوارض و ناتوانی در بیماران مبتلا به دمانس: استفاده از داروهای علامتی donepezil, memantine اصلاح محیط خانه برای پیشگیری از سقوط و حوادث حمایت از خانواده و caregivers برای کاهش burnout. توانبخشی شناختی، گفتاردرمانی، کاردرمانی.

## **Quaternary Prevention**

پیشگیری از مداخلات غیرضروری و آسیبزا در بیمار دمانس: پرهیز از پلیفارماسی و تجویز داروهای بیاثر یا مضر (مثل آنتی کولینرژیکها). اجتناب از تصویربرداریها و آزمایشهای غیرضروری وقتی که سود بالینی ندارند. مراقبت اخلاقی و توجه به کیفیت زندگی و end-of-life care

# نقش پزشک خانواده

