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Mood, Personality, and Behavior Changes in Early AD



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What Does Very Early AD Look Like?

- Almost everyone has heard of “MCI” – mild cognitive impairment, which is often an early stage of Alzheimer’s Disease (AD).
- Loss of memory and other cognitive functions are considered the clinical hallmarks of AD.
- It is less well recognized that the majority of patients experience changes in mood and behavior early in their disease course.

- Indeed, in some AD patients, mood and behavior changes are the first symptoms that they might have, and for which they first seek health care.
- Often, these symptoms are more distressing to patients and their families than is memory loss.
- But these symptoms are not typically recognized as representing early AD, and thus the underlying diagnosis of AD can be missed.

- What do we know from the studies done thus far?
- What they might be telling us about different brain changes in AD?
- How might this knowledge improve diagnosis and treatment in early AD?

Some terms people use

- Mood and behavior changes.
- Personality and emotional changes.
- Behavioral and psychological symptoms of dementia (BPSD)
- Neuropsychiatric symptoms (NPS)

Examples of behavioral and psychological changes

In Early AD:

- Apathy, withdrawal, loss of interest and motivation.
- Excessive worry, anxiety.
- Depressed and/or irritable mood.
- Impulsive or socially inappropriate speech and actions.

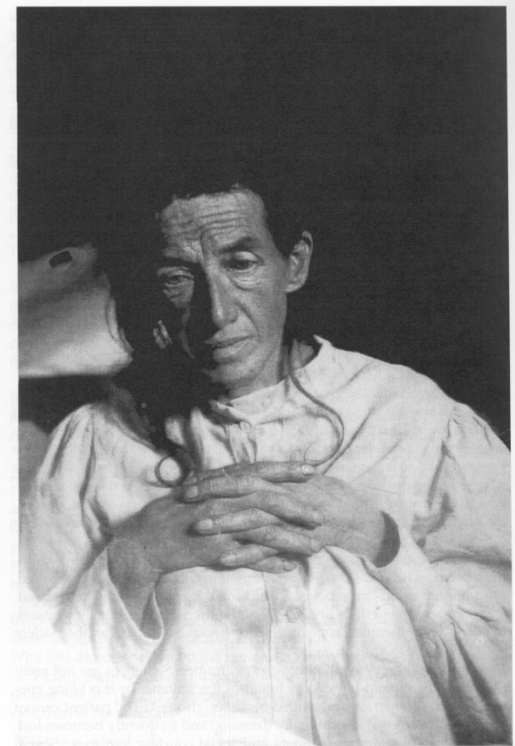
In Later AD:

- Agitation, restlessness.
- Delusions (fixed false beliefs).
- Hallucinations (false perceptions: seeing/hearing/feeling/smelling things which are not really there_

The First Known Case of Alzheimer's Disease (1907)

- *Professor Alois Alzheimer*
- Superintendent of a psychiatric hospital in Frankfurt.
- 51 year old patient brought to see him because of personality change and delusions.
- *Poor Auguste was not taken to the mental hospital because she was forgetful.*

Figure 13.4. Alois Alzheimer's Patient Auguste D. Auguste D. was a 51-year-old woman with dementia who became one of Alzheimer's patients in 1901. Auguste was demented and remained under Alzheimer's care in a Frankfurt hospital for the remaining 5 years of her life. An autopsy of her brain, performed in 1906, revealed an abundance of neurofibrillary tangles and plaques that uniquely identify Alzheimer's disease. Alzheimer based his description of the disorder on her case, but her case file had been lost for nearly a century. But in December 1995, the file was found in the hospital's archive. It was in pristine form and included this photograph of Auguste, looking worried and helpless. (By permission of Prof. Dr. K. Maurer, Goethe-Universität, Frankfurt am Main. This image was first published in *Lancet*, 1997, 249: 1546-1549.)



Over the past century

- We have focused more and more on the memory and other cognitive deficits that are seen in AD and other dementias.
- We have almost forgotten about the behavioral and psychological symptoms that these individuals also have.
- And since people with those symptoms usually go to psychiatrists rather than neurologists, neurology research does not usually include them.

What do psychiatrists usually see?

- Apathy and lack of motivation are often the first problems that are noticed by family members of people in the early stages of AD.
- Depression is often another early feature.
- Anxiety is also an other early feature.

These symptoms typically do not lead patients into the Alzheimer's Disease clinic, because those clinics are looking for people with memory problems.

What does the research show?

- *Almost all individuals with dementia* have some kind of behavioral /psychological symptoms at some point during their illness.
- *A third to half of people with MCI* have behavioral/psychological symptoms.
- People with MCI and behavioral/psychological symptoms **progress faster to dementia** than those without those symptoms.
- Normal people who develop these symptoms are more likely to *later progress to MCI*.
- There are *specific brain changes in people with these symptoms*.

People with MCI or dementia plus behavioral/psychological symptoms

- Have more impairment in their everyday functioning.
- Have worse quality of life.
- Have faster progression of severity.
- Have shorter lives.
- Are more likely to move into institutions.
- Cost themselves and their families more.

HEALTH

Personality Change May Be Early Sign of Dementia, Experts Say

By PAM BELLUCK JULY 24, 2016

“Has the person become agitated, aggressive, irritable, or temperamental?” the questionnaire asks. “Does she/he have unrealistic beliefs about her/his power, wealth or skills?”

Or maybe another kind of personality change has happened: “Does she/he no longer care about anything?”

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/5648028>

Beyond the “C” in MCI: Noncognitive Symptoms in Amnestic and Non-amnestic Mild Cognitive Impairment

Article in *CNS spectrums* · February 2008

DOI: 10.1017/S1092852900016175 · Source: PubMed

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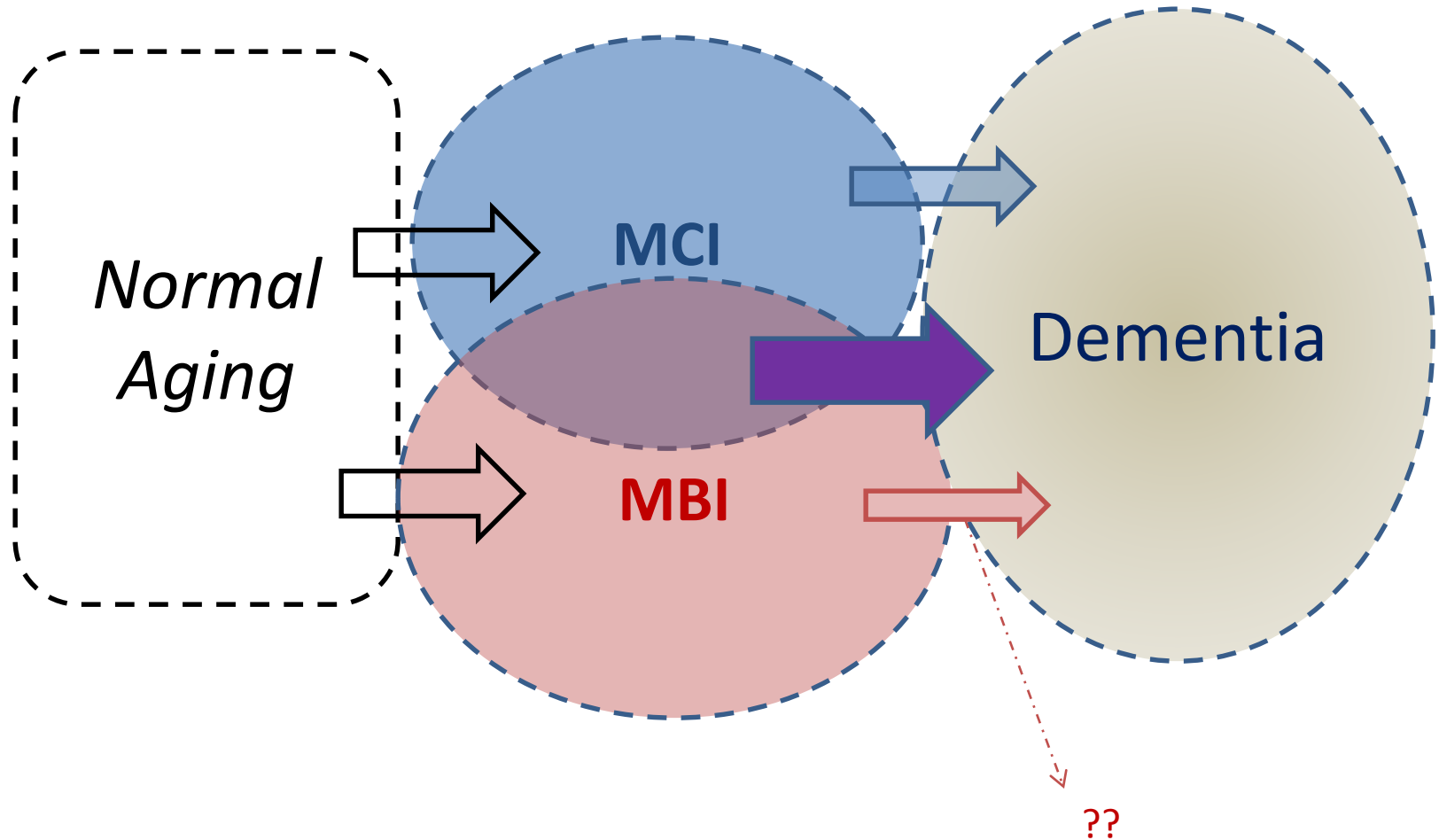
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New concept: Mild Behavioral Impairment (MBI)

- Individuals *without dementia*;
- May or may not *also* have mild cognitive impairment;
- Have one or more new behavioral/psychological symptoms *not* due to a pre-existing psychiatric disorder:
 - Drive/ Motivation
 - Mood
 - Impulsivity
 - Social Appropriateness
 - Thoughts/ Perception

The Theory

“Mild Behavioral Impairment (MBI)”



Why Is This Useful To Know?

1. Health Care Providers

- Clinicians who see older patients with psychological symptoms but without memory concerns:
 - Have an opportunity for early diagnosis of AD.
 - Can treat the symptoms and reduce distress.
 - Might slow down the rate of progression.
 - Can provide appropriate counseling and other early intervention without waiting for memory loss.

Why Is This Useful To Know?

2. Researchers

- Researchers who see older patients with psychological symptoms but without memory concerns:
 - Have an opportunity for early diagnosis of AD, including appropriate brain scans and other tests.
 - Can study how symptoms and brain changes evolve over time.
 - Can carry out early intervention trials.

Why Is This Useful To Know?

3. Patients and Families

- Older patients with psychological symptoms but without memory concerns:
 - Can seek diagnosis and treatment for relief of the psychological symptoms.
 - May also reduce the risk or rate of progression of memory loss.
 - Can seek early diagnosis of AD or other dementia.
 - Can participate in research on early AD or other dementia.

Thank You !



- Dr. Ranjan Duara and other organizers.
- Mt. Sinai Medical Center.
- World Events Forum.
- MBI Mini-Symposium Speakers.

