EVIDENCE-BASED

CLINICAL MANAGEMENT

OF DEMENTIA WITH

COMORBID DEPRESSION
Session 1: Evidence-Based Clinical Management of Dementia With Comorbid Depression

Learning Objectives

• Describe 3 distinguishing characteristics for differential diagnosis of dementia of the Alzheimer’s type, depression with comorbid Alzheimer’s disease (AD), and depression without dementia.
• Recommend 2 antidepressant medication regimens without anticholinergic adverse effects for use in patients with Alzheimer’s disease.

Faculty

Malaz Boustani, MD, MPH
Scientist, Regenstrief Institute, Inc.
Assistant Professor of Medicine
Indiana University School of Medicine
Center Scientist, Indiana University Center for Aging Research
Director of Research Operations
Indianapolis Discovery Network for Dementia
Indianapolis

Dr Boustani is a scientist with the Regenstrief Institute, Inc., assistant professor of medicine at Indiana University School of Medicine, center scientist at the Indiana University Center for Aging Research, and director of research operations at the Indianapolis Discovery Network for Dementia, all in Indianapolis. After receiving a medical degree from Damascus University in Syria in 1994, Dr Boustani completed a residency in internal medicine at Mt Sinai Medical Center/Case Western Reserve University in Cleveland, Ohio, and fellowships in geriatrics and clinical research at the University of North Carolina School of Public Health in Chapel Hill, where he received a master of public health degree. Dr Boustani is interested in enhancing the quality of the current health care system to accommodate the needs of patients with cognitive impairment, in particular, those with dementia, and is involved in several large projects aimed at identifying barriers to the development of an enhanced system in primary and long-term care.

Charles A. Cefalu, MD, MS
Professor and Chief, Section of Geriatric Medicine
Department of Internal Medicine
Louisiana State University Health Science Center
New Orleans

Dr Cefalu completed a geriatric medicine fellowship and master of science degree at Bowman Gray School of Medicine/Wake Forest University from 1990-1992. After a 5-year tenure at Georgetown School of Medicine in Washington, DC, from 1992-1997, he became and currently serves as program director of the Louisiana State University Geriatric Medicine Fellowship and chief of the Section of Geriatric Medicine, Department of Medicine at the LSU Health Science Center. Dr Cefalu serves as chair of the Clinical Practice Committee of the American Medical Directors Association and is a member of the Public Policy Committee of the American Geriatrics Society. He also serves on the nursing home initiative of the Louisiana Healthcare Review, the organization that oversees quality improvement by Medicare (CMS) for Louisiana nursing homes. In 2007 he was honored as the advisory board Member of the Year. In 1996 Dr Cefalu was 1 of 10 family physicians chosen nationally to serve as a Residency Assistance Program/Hartford Geriatric Initiative Consultant for the American Academy of Family Physicians and the Society of Teachers of Family Medicine.

Faculty Financial Disclosure Statement(s)
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Dr Cefalu has nothing to disclose.
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Drug List

<table>
<thead>
<tr>
<th>Generic</th>
<th>Trade</th>
<th>Generic</th>
<th>Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>atorvastatin</td>
<td>Lipitor</td>
<td>sertraline</td>
<td>Zoloft</td>
</tr>
<tr>
<td>glyburide</td>
<td>Micronase</td>
<td>venlafaxine</td>
<td>Effexor</td>
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<td>hydrochlorothiazide</td>
<td>various</td>
<td>bupropion</td>
<td>Wellbutrin</td>
</tr>
<tr>
<td>amlodipine</td>
<td>Caduet, Exforge, Norvasc</td>
<td>mirtazapine</td>
<td>Remeron</td>
</tr>
<tr>
<td>donepezil</td>
<td>Aricept</td>
<td>linezolid</td>
<td>Zyvox</td>
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<td>galantamine</td>
<td>Razadyne</td>
<td>lithium</td>
<td>Lithobid</td>
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<td>rivastgmine</td>
<td>Exelon</td>
<td>tramadol</td>
<td>Ultram</td>
</tr>
<tr>
<td>memantine</td>
<td>Namenda</td>
<td>nortriptyline</td>
<td>Aventyl, Pamelor</td>
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<tr>
<td>citalopram</td>
<td>Celexa</td>
<td>donepezil</td>
<td>rivastigmine</td>
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<td>escitalopram</td>
<td>Lexapro</td>
<td>galantamine</td>
<td>memantin</td>
</tr>
<tr>
<td>paroxetine</td>
<td>Paxil</td>
<td>Off-Label</td>
<td></td>
</tr>
<tr>
<td>fluoxetine</td>
<td>Prozac, Symbyax</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Suggested Reading List


Evidence-Based Clinical Management of Dementia With Comorbid Depression

December 2, 2008
Atlanta, Georgia

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Interrelationships of Alzheimer’s Disease and Depression

PCP Patient Panel

- 2000 patients
  - Age > 65 years: 300
    - 3 chronic conditions: 150
    - Musculoskeletal pain: 195
    - Feeling anxious: 94
    - Major depression: 7-14
    - Hospitalized every year: 63
  - CI: 45 Dementia: 24
    » Recognized 8

Adhere to Disease-Specific Guidelines

- PCP pays attention to
  - Conflicting recommendations
  - Drug interactions
- PCP needs (per day)
  - 10 hours for chronic care management
  - Additional 7 hours for preventive services

Case Study: Mrs. Granier

- 75-year-old Caucasian woman, widowed for 15 years, 5 grown children
- From Chalmette, Louisiana, which was devastated by Hurricane Katrina
- Family medical history:
  - Positive for high blood pressure, diabetes, and stroke
  - Her daughter indicates that her mother is having memory loss
- Patient medical history
  - Hypertension, diabetes, hyperlipidemia
  - History of depression
- Current medications
  - Atorvastatin, glyburide, HCTZ, amlodipine
  - Prior to Hurricane Katrina was also taking sertraline
  - Has not been taking any of her medications regularly

HCTZ = hydrochlorothiazide.

What Is the Most Likely Cause of Mrs. Granier’s Symptoms?

1. Delirium
2. Depression
3. Mild cognitive impairment
4. Dementia
5. Current medications

Dementia Symptomatology

- Cognitive impairment:
  - Memory deficit
  - Language deficit
  - Executive deficit
  - Visuospatial deficit
  - Stimulus recognition deficit (agnosia)

- Behavioral and psychological symptoms:
  - Apathy
  - Depression/depression/irritability
  - Anxiety
  - Delusions/hallucinations
  - Elation/euphoria

- Behavioral and psychological symptoms (cont'd)
  - Disinhibition
  - Abnormal motor behavior
  - Sleep
  - Appetite/weight changes
  - appetizer disorders

- Functional disability:
  - Basic ADL disability
  - IADL disability

- Caregiver burden:
  - Sleep problem
  - Mood problem
  - Coping problem

Comorbidity in PCP

<table>
<thead>
<tr>
<th>Variable</th>
<th>Screen</th>
<th>Cognitive Impairment</th>
<th>Dementia</th>
<th>Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean no. of chronic comorbid conditions</td>
<td>2.3</td>
<td>2.4</td>
<td>22.4</td>
<td>NS</td>
</tr>
<tr>
<td>Mean no. of medications</td>
<td>6.1</td>
<td>6.9</td>
<td>5.1</td>
<td>&lt;0.07</td>
</tr>
<tr>
<td>% Anticholinergics</td>
<td>17.0</td>
<td>21.6</td>
<td>15.9</td>
<td>NS</td>
</tr>
<tr>
<td>% Cholinergic</td>
<td>10.7</td>
<td>1.4</td>
<td>7.5</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>% Antidepressants</td>
<td>7.2</td>
<td>8.1</td>
<td>6.5</td>
<td>NS</td>
</tr>
<tr>
<td>% Antipsychotics</td>
<td>19.7</td>
<td>26.3</td>
<td>11.2</td>
<td>NS</td>
</tr>
<tr>
<td>% Any psychotropic diagnosis</td>
<td>2.3</td>
<td>23.0</td>
<td>19.6</td>
<td>.651</td>
</tr>
<tr>
<td>% Chart dementia diagnosis</td>
<td>1.5</td>
<td>1.4</td>
<td>18.7</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

ADL = activities of daily living, IADL = instrumental ADL.


P < .05 indicates statistical significance.
Peak Frequency of Behavioral Symptoms in AD Progression

Prevalence of Behavioral Symptoms in AD

Relation of Depressive Symptoms to AD (Cont’d)

Influence of Depressive Symptoms on Odds of MCI

Pathological Correlates Between MDD and AD

Relation of Depressive Symptoms to AD

Relation of Depressive Symptoms to AD

Influence of Depressive Symptoms on Odds of MCI

Pathological Correlates Between MDD and AD

AD = Alzheimer’s disease.


Prevalence of Behavioral Symptoms in AD

Sleep disturbance

Agitation

Eating disorder

Irritability

Anxiety

Apathy

Depression

Disinhibition

Hallucination

Aberrant motor behavior

Delusion

Euphoria

Meta-analysis of 19 additional studies has further demonstrated that a history of depression imparts an increased risk (OR = 2.03) for the development of AD

OR = odds ratio.


• Neuritic plaques and neurofibrillary tangles are hallmarks of AD pathology

Depression has a greater effect on the extent of neuropathologic disease than duration of AD

CERAD = Consortium to Establish a Registry for Alzheimer’s Disease; MDD = major depressive disorder.

Differential Diagnosis Scenarios

Case Study: Mrs. Granier

- Physical examination
  - Appears withdrawn
  - Alert but agitated when questioned
  - Responds to questions with "I don't know"
  - Blood pressure, 180/100 mm Hg
  - Pulse, 100 beats/min
  - Temperature, 98° F
  - HEENT: arteriovenous nicking and hemorrhages, temporal wasting bilaterally
  - Extremities: thin with loss of muscle mass
  - Vitamin B₁₂, folate, TSH, free T₄, CBC were all negative
- Medication review did not reveal any high doses of medications with negative cognitive effects

HEENT = head, ears, eyes, nose, throat; TSH = thyroid-stimulating hormone; T₄ = thyroxine; CBC = complete blood cell count.

What Is the Most Likely Cause of Mrs. Granier’s Symptoms?

1. Delirium
2. Depression
3. Mild cognitive impairment
4. Dementia
5. Current medications

Diagnostic Challenges for Depression in Dementia

- Different clinical symptoms than in cognitively intact
- Patients may not be able to communicate their feelings
- 50% of diagnosis is based on caregiver reports
- Caregivers may overestimate depression
- Depression versus hypo-alert delirium
- Apathy versus depression in AD
- More fear and suspiciousness
- Higher rates of psychomotor agitation/retardation

Clinical Characteristics of Depression, AD, and AD with Depression

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Depression</th>
<th>AD</th>
<th>Mixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep</td>
<td>Recurrent</td>
<td>None</td>
<td>Mixed</td>
</tr>
<tr>
<td>Mood</td>
<td>Depressed</td>
<td>Stable</td>
<td>Mixed</td>
</tr>
<tr>
<td>Delirium</td>
<td>No</td>
<td>Yes</td>
<td>None</td>
</tr>
<tr>
<td>Cognitive impairment</td>
<td>Likely</td>
<td>Less likely</td>
<td>Less likely</td>
</tr>
<tr>
<td>Feelings of guilt</td>
<td>Likely</td>
<td>Less likely</td>
<td>Less likely</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Frequent responses to memory and orientation questions</td>
<td>I don’t know</td>
<td>Confabulation</td>
<td>Mixed</td>
</tr>
<tr>
<td>Performance on tests of Visuospatial function</td>
<td>Normal for age</td>
<td>Impaired</td>
<td>Impaired</td>
</tr>
</tbody>
</table>

Cognitive Tests for Diagnosis of Dementia

<table>
<thead>
<tr>
<th>Test</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMSE</td>
<td>Multiple cognitive domains, 11 items</td>
</tr>
<tr>
<td></td>
<td>Administration time: 5 to 10 minutes</td>
</tr>
<tr>
<td></td>
<td>30 points, &lt;24 points suggests impairment</td>
</tr>
<tr>
<td>Mini-Cog</td>
<td>Clock-drawing test (CDT) and 3-item memory test</td>
</tr>
<tr>
<td></td>
<td>Administration time: 3 minutes</td>
</tr>
<tr>
<td></td>
<td>5 points, &lt;3 points suggests impairment</td>
</tr>
<tr>
<td>Mindstreams Global Assessment</td>
<td>Computerized test measuring multiple cognitive domains</td>
</tr>
<tr>
<td></td>
<td>Administration time: 45 minutes</td>
</tr>
<tr>
<td></td>
<td>Identifies dementia in the presence of depression</td>
</tr>
<tr>
<td>AD8</td>
<td>Caregiver interview based measuring changes in cognition</td>
</tr>
<tr>
<td></td>
<td>Administration time: &lt;3 minutes</td>
</tr>
<tr>
<td></td>
<td>8 yes/no questions, score &lt;2 indicates dementia</td>
</tr>
</tbody>
</table>

MMSE = Mini-Mental State Examination.

Sources:
Provisional NIMH Diagnostic Criteria for Depression in AD

– AD diagnosis
– Clinically significant depressed mood or decreased positive reaction to social/usual activities for >2 weeks
– Presence of at least 2 additional symptoms for 2 weeks:
  • Clinically depressed mood
  • Loss of interest in social activities and ADL
  • Social isolation
  • Disruption in appetite
  • Sleep problem
  • Loss of energy
  • Irritability
– Clinically significant distress or dysfunction due to depressive symptoms
– Absence of other medical or psychiatric disorders

NIMH = National Institute of Mental Health.

Diagnostic Tools for Depression

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Description</th>
<th>Cutoff (range)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>CES-D</td>
<td>Self-administered scale; 20 items regarding depressive symptoms in the past week</td>
<td>16 (0-60)</td>
<td>Good for interventions</td>
</tr>
<tr>
<td>GDS</td>
<td>Self-administered scale; 15 yes/no questions regarding depressive symptoms</td>
<td>6 (0-15)</td>
<td>Less internal consistency in MSAD than in mild AD</td>
</tr>
<tr>
<td>MADRS</td>
<td>Clinician-administered scale; 10 items assessing severity of core depressive symptoms</td>
<td>13 (0-60)</td>
<td>Good internal consistency in mild AD and MSAD</td>
</tr>
<tr>
<td>CSDD</td>
<td>Interview-based scale; 10 items assessing severity of depressive signs and symptoms</td>
<td>8 (0-30)</td>
<td>Good internal consistency in mild AD and MSAD</td>
</tr>
</tbody>
</table>

 CES-D = Center for Epidemiologic Studies Depression Scale; GDS = Geriatric Depression Scale; MADRS = Montgomery-Åsberg Depression Rating Scale; CSDD = Cornell Scale for Depression in Dementia; MSAD = moderate to severe Alzheimer’s disease.

Which of the Following Mood Symptoms Can Help Differentiate Between Depression, AD, and AD Mixed with Depression?

1. Apathy
2. Loss of Appetite
3. Guilt
4. Psychosis
5. Depressive Symptoms

Case Study: Mrs. Granier

• Cognitive test score
  – MMSE 21/30
• Depression Test Score
  – GDS 11/30
• CT scan was negative except for mild cerebral atrophy

What Is the Most Likely Cause of Mrs. Granier’s Symptoms?

1. Delirium
2. Depression
3. Mild cognitive impairment
4. Dementia
5. Current medications

Pharmacotherapy of Alzheimer’s Disease and Comorbid Depression
Nonpharmacologic Interventions for Depression With Dementia

- Interventions reduce symptom severity
- Advantages:
  - Fewer side effects
  - No drug interactions
  - May reduce antipsychotic medication use
  - Reinforce independent positive behavior
  - May improve health of caregiver


Recommended Behavioral Strategies

- Increase enjoyable activities
  - Consider previous interests
  - Adapt to ability
  - Attend garden show vs active gardening
  - Walk instead of hike/jog
- Increase socialization
- Reduce frustrating activities
- Redirect and focus
  - Reduces perseveration on depressive thoughts/behaviors
  - Memory books, discussion of memories
- Address caregiver needs
  - Caregiver may be depressed
  - Respite, day care, caregiver support


The Use of Light Therapy in Treatment of Depressive Symptoms in Dementia

- Light therapy resulted in maintenance of current levels of cognitive function
- Diminished decline in functional abilities
- Effect of light therapy remained significant at 3.5 yr follow up.


Pharmacologic Treatment of Behavioral Symptoms: Available Options

- AD-specific agents*
  - ChEIs
    - Donepezil, galantamine, rivastigmine
  - NMDA receptor antagonist
    - Memantine
- Psychotropic agents*
  - Antipsychotics—typical, conventional
  - Anxiolytics—benzodiazepines, others
  - Antidepressants—TCAs, SSRIs, SNRIs
  - Mood-stabilizing agents

*There are no FDA-approved agents for the management of behavioral symptoms of dementia.

NMDA = N-methyl-D-aspartate; TCA = tricyclic antidepressant; SSRI = selective serotonin reuptake inhibitor; SNRI = selective serotonin and noradrenergic reuptake inhibitor


Behavioral Outcomes of AD Therapy: Single-Item Domains

Statistically Significant Improvements in NPI-NH Single-Item Behavioral Domains Compared With Placebo

- ChEI (donepezil) monotherapy
  - Agitation/aggression
- Memantine monotherapy
  - Agitation/aggression
  - Delusions
- Combination therapy (donepezil/memantine)
  - Agitation/aggression
  - Irritability/lability
  - Appetite
- Despite statistical significance, beneficial effects on behavior are modest in nature

NPI-NH = Neuropsychiatric Inventory-Nursing Home version.


Treatment With Memantine Monotherapy Can Significantly Improve:

1. Depression
2. Irritability
3. Agitation/aggression
4. Appetite
5. Hallucinations

Effect of ChEIs on Depressive Symptoms in Patients With Dementia

**P < .005; * P < .05**

ChEI dosages: donepezil = 5-10 mg; rivastigmine = 3-5.4 mg.

GDS cog = GDS cognitive symptoms; GDS mood = GDS mood symptoms.


Depressed N = 50

Not Depressed N = 85

Mean Score at Baseline

<table>
<thead>
<tr>
<th></th>
<th>GDS total</th>
<th>GDS cog</th>
<th>GDS mood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16 weeks</td>
<td>16 weeks</td>
<td>16 weeks</td>
</tr>
<tr>
<td>Depressed</td>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Not Depressed</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Agents Approved for Depression

<table>
<thead>
<tr>
<th>Medication</th>
<th>Available Formulations</th>
<th>Dosage Available</th>
<th>Initial Dosage, mg</th>
<th>Dosage Range, mg</th>
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</thead>
<tbody>
<tr>
<td>Citalopram</td>
<td>Tablets, suspension 10 mg, 20 mg, 40 mg; 2 mg/mL</td>
<td>10</td>
<td>20-30</td>
<td></td>
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<tr>
<td>Escitalopram</td>
<td>Tablets, suspension 5 mg, 10 mg, 20 mg; 1 mg/mL</td>
<td>5</td>
<td>10-20</td>
<td></td>
</tr>
<tr>
<td>Paroxetine</td>
<td>Tablets, suspension 20 mg, 25 mg, 40 mg, 60 mg, 80 mg, 100 mg</td>
<td>20</td>
<td>25-150</td>
<td></td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>Tablets, capsule, suspension 10 mg divided dose; 10 mg, 20 mg, 40 mg; 90 mg/wk; 4mg/mL</td>
<td>10</td>
<td>20-80</td>
<td></td>
</tr>
<tr>
<td>Sertraline</td>
<td>Tablets, suspension 25 mg, 50 mg, 100 mg</td>
<td>25</td>
<td>50-250</td>
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</tr>
<tr>
<td>Venlafaxine XR</td>
<td>Tablets</td>
<td>37.5 mg, 75 mg, 150 mg</td>
<td>37.5</td>
<td>75-225</td>
</tr>
<tr>
<td>Bupropion</td>
<td>Sustained and extended release tablets</td>
<td>100 mg, 150 mg, 200 mg</td>
<td>100</td>
<td>200-300</td>
</tr>
<tr>
<td>Mirtazapine</td>
<td>Tablets</td>
<td>15 mg, 30 mg, 45 mg</td>
<td>15</td>
<td>45-90</td>
</tr>
</tbody>
</table>

Source: Physicians' Desk Reference Electronic Library.

Common Tolerability Considerations

- Anticholinergic effects
- Sedation
- Orthostatic hypotension
- Tremor
- Gastrointestinal effects
- Weight loss or gain
- Increase in blood pressure
- Insomnia
- Discontinuation syndrome
- Drug interactions – CYP2D6
  - Triptans, linezolid, lithium, tramadol, St. John’s wort

Source: Physicians’ Desk Reference Electronic Library.

Case Study: Mrs. Granier

- A diagnosis of pseudo-dementia is entertained; however, depression superimposed on AD can not be ruled out
  - A trial of sertraline 25 mg with titration to 75 mg over 4 to 6 weeks was prescribed

- 3 months later
  - She is more alert and her function has increased
  - Patient is still having difficulties with appetite
    - Lost another 5 lb
  - She will not leave home

What Would You Do Next?

1. Wait and observe to see if continued maintenance therapy with sertraline has additional benefit
2. Cease sertraline therapy and initiate treatment with an alternative antidepressant
3. Initiate treatment with a ChEI
4. Augment sertraline therapy with an additional antidepressant
5. Initiate treatment with a ChEI in conjunction with continued sertraline therapy

Antidepressant Therapy for Depression in AD

- Variability in scales and responses reported in different studies

Depression in Alzheimer’s Disease Study

Treatment with sertraline also resulted in:
• Less functional decline
• Fewer behavioral disturbances
• Reduced caregiver stress


Response Rates Over Time

Which of the Following Is NOT a Result of Treatment With Sertraline in Depression in AD?

1. Fewer behavior symptoms
2. Slows cognitive decline
3. Reduce caregiver stress
4. Decrease functional decline
5. Improvement in depressive symptoms

Practical Considerations for Pharmacotherapy

• Antidepressant should be chosen based on side-effect profile
• SSRIs with their minimal safety concerns are preferred over TCA and MAOIs
  – Anticholinergic and cardiotoxicity side effects
• Start low and go slow
• Up to 12 weeks to see complete benefit
• If individuals do not respond to initial agent, consider a second agent or augmentation
• Cognitive impairment and depression are both associated with decreased adherence

MACO = monoamine oxidase inhibitor.

Practical Considerations: Psychosis in Depression

• Symptoms may respond to a SSRI or anticonvulsant
• Atypicals may be considered
  – Risk/benefit ratio should be determined when using an antipsychotic
• Referral to a psychiatrist

Electroconvulsive Therapy for Treatment of Depression in AD

• Small chart review, 31 hospitalized patients
  – 50% developed delirium
  – Statistical improvement in MMSE (1.6 points) overall
  – Decrease in MADRS by 12 points
• Evidence for ECT in geriatric depression
  – Remission rates between 55% and 86%
  – Relapse rate of 32% to 37%
  – 39% to 60% for antidepressants
  – Time to relapse was greater

MADRS = Montgomery Åsberg Depression Rating Scale.

Merging Care Practices for Depression in Dementia: Effect on Cognition

• Mild dementia
• Antidepressant, ChEI, lifestyle recommendations
• Improvements on Cognistat, CDT also observed


Case Study: Mrs. Granier

• Plan of action
  – Her sertraline dose was increased to 100 mg
  – Mirtazapine 15 mg at bedtime was also added
  – Referred to a psychologist for counseling
• 1 month later
  – Her appetite has increased and her weight has stabilized
  – Her physical functioning has improved
  – Now taking trips to the grocery store with her daughter
• 1 month later
  – She has gained an additional 5 lb
  – Daughter indicates Mrs. Granier is more upbeat
• 3 months later
  – She has regained all of the weight she lost prior to her first visit

Summary

• Primary care practitioners can effectively detect and manage depression in dementia
• A variety of diagnostic tools such as the GDS and CSDD exist to aid clinicians in better identifying depression in patients with dementia
• Pharmacologic and nonpharmacologic interventions reduce depressive symptoms, functional decline, behavioral disturbances, and caregiver burden
• Special considerations, such as dosage and duration of therapy, need to be taken into account in this patient population