DEMENTIA

Assessment & Management Of Behavioral Symptoms

John F. Manfredonia, DO, FACOFP

Disclosures

- Dr. Manfredonia discloses his employment as
  - Area Medical Director for VistaCare
- VistaCare has provided commercial support for this activity
- Palliative medicine frequently involves the use of medications for “off-label” purposes. Such use may be discussed during this presentation.

Objectives

- Define dementia and review its epidemiology
- Discuss dementia and when it renders one hospice eligible
- Describe the assessment and management of behavioral symptoms caused by dementia

Overview

- Briefly Review
  - Definition
  - Magnitude of Problem
  - Eligibility
- Assessment
  - Behavioral Symptoms
- Treatment Strategies
  - Non-pharmacologic
  - Pharmacotherapy
- Summary

Dementia

A chronic deterioration of intellectual function and other cognitive skills severe enough to interfere with the ability to conduct everyday activities.

Dementia Syndromes

- >60 different types
- Effects 50% of Individuals >85 yo
- Predominate Types
  - Alzheimer's
  - Vascular
  - Lewy Body
  - Parkinson's

…Dementia Syndromes

- Affects more than 4.5 million in US
- 4th leading cause of death among older adults
- Average life expectancy is 8-10 years following diagnosis
- 7/10 persons with dementia live at home

…Dementia Syndromes

- Significant levels of caregiver stress, depression and grief
- Major reason for placement in LTCF
- High Prevalence of Behavioral & Psychiatric Symptoms

Progression of Dementia

Mild	Moderate	Severe	Terminal
Impaired memory & language Personality changes Spatial disorientation	Confusion **Agitation** Insomnia Aphasia Apraxia	Resistiveness; Incontinence; Eating difficulties; Motor impairment	Bedfast; Mute; Intercurrent infections; Dysphagia

Dementia Eligibility

- FAST: Stage 7C or beyond
- And one of the following conditions within the past twelve (12) months
  - Aspiration pneumonia
  - Pyelonephritis
  - Septicemia
  - Decubitus ulcers, multiple, stage 3-4
  - Fever, recurrent after antibiotics
  - Inability to maintain sufficient fluid and calorie intake
    - 10% weight loss within six (6) months
    - Serum albumin <2.5gm/dl
  - Other significant events or conditions

Dementia & Hospice

- 8% of Hospice Admissions
- Late stage dementia varies from 1-3 years, therefore 6 month prognostication is challenging
- Present eligibility criteria are inadequate
- Hospice staff generally know little about dementia care
- A new model for care is needed

Assessment & Management of Behavioral Symptoms

Assessment Guidelines

- Investigate before Prescribing
  - Behavior
    - New vs Exacerbation of old behavior?
  - Changes
    - Environment
    - Medication
    - Medical Condition
  - Elder abuse
  - Safety of patient and caregiver

Behavioral Symptoms

- **Psychosis**
  - Delusions
  - Hallucinations
- **Agitation / Aggression**
  - Verbal
  - Vocal
  - Physical
- **Sleep Disorders**
- Wandering
- Depression
- Anxiety
- Apathy
- Crying
- Restlessness
- Pacing
- Uncooperative
- Disinhibition
- Repetitive Questioning
- Change in Appetite

Bold = most distressing

…Manifestations of Psychosis

- Delusions
  - Misidentification of caregivers
  - Perception of stealing
  - Abandonment
  - Sexual infidelity
  - "One's house is not one's home"
- Hallucinations
  - Visual > Auditory
  - Usually benign

Reasons for Behavioral Problems

- **Environmental**
- Medical Causes
- Psychiatric
- Acute Delirium

Environmental

- Changes
  - Location
  - Caregiver
  - Disruption of Routines
  - Roommate
  - Noise
  - Lighting
  - Temperature
  - Loss of a prized possession

Reasons for Behavioral Problems

- Environmental
- **Medical Causes**
- Psychiatric
- Acute Delirium

Medical Causes

- Constipation
- Urinary Retention
- Pain
- Medical Illness
  - Infection
    UTIs / Pneumonia
  - Exacerbation of CHF / COPD
  - DVTs
- Medication

Reasons for Behavioral Problems

- Environmental
- Medical Causes
- **Psychiatric**
- Acute Delirium

Psychiatric Causes

- Depression
- Pre-existing co-morbidities
  - Schizophrenia
  - Bipolar
  - Recurrent Depression
  - Chronic Anxiety or Panic Disorders
  - Obsessive Compulsive Disorders
  - History of ETOH or Drug Abuse

Reasons for Behavioral Problems

- Environmental
- Medical Causes
- Psychiatric
- **Acute Delirium**

Delirium vs Dementia

- Develops rapidly
- Fluctuating course
- Reversible
- Affects attention
- Focal deficits
- Causes
  - Systemic disease
  - Medication
  - Infectious
  - Metabolic

- Develops slowly
- Slow progression
- Non-reversible
- Affects memory
- Global deficits
- Causes
  - Alzheimer's
  - Multi-infarct
  - Parkinsonism
  - Lewy Body

…Delirium Causes

- Systemic Disease
  - Anoxia
  - Thyroid
  - Metabolic
    - K+ / Na+ / Glucose
    - Acidosis
  - Postconcussion
  - Postictal State
  - Ischemia

- Medication
  - ETOH
  - Opioids
  - Benzodiazepines
  - Antiemetics
  - Tricyclics
  - Antispasmodics
  - Antipsychotics
  - Antihistamines

…Delirium Medications

Acetazolamine, Alphamethyldopa, Amantadine, Amphetamines, Ampicillin, Azathioprine (AZT), 6-Azauridine, Baclofen, Beta Blockers, Bethanidine, Bleomycin, Bromocriptine, C-Asparaginase, Carbamazepine, Choline, Cimetidine, Clonidine, Clycloserin, Cocaine, Corticosteroids (including ACTH), Cyproheptadine, Danazol, Digitalis, Diphenoxylate, Disulfiram, Ethionamide, Fenfluramine, Griseofulvin, Guanethidine, Hydralazine, Ibuprofen, Indomethacin, Lidocaine, Levodopa, Methoserpidine, Methysergide, Metronidazole, Nalidixic Acid, Neuroleptics (butyrophenones, phenothiazines, oxyindoles), Nitrofurantoin, Opiates, Oral Contraceptives, Phenacetin, Phenytoin, Prazosin, Prednisone, Procainamide, Procyclidine, Quanabenzacetate, Rescinnamine, Reserpine, Sedative/Hypnotics (barbiturates, benzodiazepines, chloral hydrate), Streptomycin, Sulfamethoxazole, Sulfonamides, Tetrabenazine, Tetracycline, Triamcinolone, Trimethoprim, Veratrum, Vincristine.

Treatment Strategies

- Correct Underlying Cause
- Non-pharmacologic Approach
- Pharmacotherapy

Avoid Restraints

General Approach

1. Is the patient or caregiver's safety at risk
2. Is the patient Psychotic
   a) Delusions or Hallucinations
      1. Yes
         a) Treat with antipsychotic
      2. No
         a) Non-pharmacologic Interventions
         b) Pharmacotherapy

Nonpharmacologic Management

- Identify the target symptoms
  - Determine when they occur
  - Are there Precipitating Factors?
- Set up a planned intervention
  - "Plan of Care"
- Continue to evaluate and alternate treatment approach as necessary

…Nonpharmacologic Management

- Recognize
  - Time for rest
  - Change in activity…go for a walk
  - Bored / Lonely
  - Over-stimulated
  - Hot / Cold
  - Need to empty bladder / bowels
  - Need for distraction…Hershey's kiss

…Nonpharmacologic Management

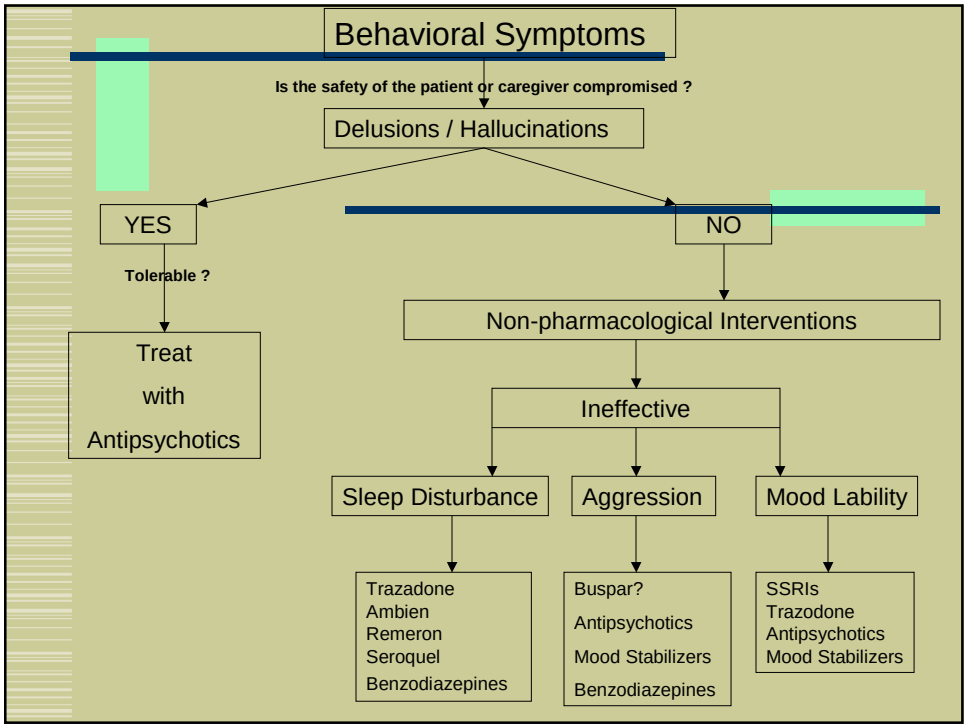
- Music Therapy
- Aromatherapy
- Pet Therapy
- Massage Therapy
- Spiritual Activities

…Nonpharmacologic Management

- Wandering
  - Risk of getting lost or injured
  - Treatment
    - Protected areas for ambulation
    - Electronic systems
- Agitation
  - Music Therapy

Pharmacotherapy

- Irritability / Agitation / Aggressive / Combative
  - Buspirone (Buspar®)
  - Mood stabilizers
    - Divalproex sodium (Depakote®)
    - Valproic Acid
    - Lithium
    - Tegretol
  - Antipsychotics
    - Haloperidol (Haldol®)
    - Chlorpromazine (Thorazine®)
    - Risperidone (Risperdal®)
    - Quetiapine (Seroquel®)
    - Olanzapine (Zyprexa®)
    - Fluoxetine/olanzapine (Symbyax®)
  - Cholinesterase Inhibitors
  - Benzodiazepines
  - SSRIs & Trazodone



Antipsychotics

- Haloperidol 0.5-5mg q 2-12h PO,SQ,IV*,IM
  - Maximum dose ? (20mg)
- Chlorpromazine 10-100mg q 4-6h PO, PR, IM, IV
  - Maximum dose 1000mg
- Risperidone 0.25-1mg qd PO
  - Maximum dose 16mg
- Olanzapine 2.5mg qd - 5mg bid PO
  - Maximum dose 20mg
- Quetiapine 25mg hs - 75mg bid PO
  - Maximum dose 800mg

*half the po dose

…Antipsychotics…side effects

- Sedation
- Orthostatic Dizziness
- Anticholinergic Effects
- Extrapyramidal Side-effects
  - Stiffness, Immobility, and Falls
- Tardive Dyskinesia
- Neuroleptic Malignant Syndrome
  - Rigidity / Autonomic instability / Encephalopathy

…Antipsychotics…side effects

- Typical Neuroleptics
  - Highly sedating
  - Extrapyramidal symptoms
  - Anticholinergic Activity
  - Can worsen memory & cognition
- Atypical Neuroleptics
  - Lower incidence at lower doses
  - Extrapyramidal symptoms
  - Somnolence
  - Abnormal gait

FDA "Black Box" Warning
April 2005

- Warning for treatment of behavioral disorders in elderly patients with dementia
  - Risperidone / Olanzapine / Quetiapine Aripiprazole
  - Increased mortality (observed within 10-12 wks of initiating medication)
    - Heart failure
    - Sudden death
    - Infections (mostly pneumonia)
    - Stroke ?

JAMA …Atypical Antipsychotics

- "Risk of Death with Atypical Antipsychotic Drug Treatment of Dementia" Meta-analysis of Randomized Placebo-Controlled Trials
- Conclusion: …drugs may be associated with a small increased risk for death compared with placebo. This risk should be considered within the context of medical need for the drugs, efficacy evidence, medical comorbidity, and the efficacy and safety of alternatives…"

JAMA. Oct 19, 2005-Vol 294, No. 15, 1934-1943

Specific Behaviors

- Repetitive, verbally aggressive and oppositional behaviors
  - Trazodone 50 to 250mg daily
- Excessive motor activity
  - Haloperidol 1 to 5mg daily
- Delusional misidentifications
  - Mirtazapine / Olanzapine
- Sexual Aggression
  - Medroxyprogesterone acetate 150mg

Medication Cost

Professional Pharmacy Oct '05

Medication	Strength / Quantity	Cost in $
Haloperidol	.5mg (30)	12
	1mg "	16
	2mg "	21
	5mg "	32
	10mg "	51
	2mg/ml (30ml) Solution	29
	5mg/ml (5ml) Injectable	49
Chlorpromazine	25mg (30)	22
	50mg "	29
	25mg/ml #15 50mg/2ml Injectable	87

Medication Cost

Professional Pharmacy Oct '05

Medication	Strength / Quantity	Cost in $
Risperidone	.25mg (30)	130
	.5mg "	140
	1mg "	150
	2mg "	234
	1mg/ml (30ml) Solution	165
Olanzapine	2.5mg (30)	236
	5mg "	270
	10mg "	418
	5 & 10 mg ODT	323 & 462
Quetiapine	25mg (30)	75
	100mg "	128
	200mg "	238
	25mg/ml (240ml) Compounded Liq	184

Comparison Medication Cost

Professional Pharmacy Oct '05

Haldol .5mg #30	Thorazine 25mg #30	Seroquel 25mg #30	Risperdal .25mg #30	Zyprexa 2.5mg #30
$12	$22	$75	$130	$236

Summary

- Behavioral and Psychiatric Symptoms
  - Challenging…difficult to treat
  - Overwhelming to patients, families and caregivers
  - Major reason for placement in LTCF
  - May lead to overmedication
    - Limited benefits & potential side-effects
  - Always consider nonpharmacologic interventions first
  - Remember patient / caregiver safety

…Summary

- An Opportunity
  - Advancement of Palliative Services
  - Improve Quality of Life for the patient and/or caregiver
  - Address Advanced Directives with Proxy
    - Cardiopulmonary resuscitation
    - Tube feedings
    - Antibiotic treatment
    - 911

QUESTIONS

References

- Press, D. Alexander, M. *Treatment of behavioral symptoms related to dementia.* UpToDate. April 2005
- Holroyd, S. *Managing dementia in long-term care settings.* Clinics in Geriatric Medicine 20 (2004) 83-92
- Hamilton, G. & J. Dougherty, RN, *"Improving Hospice Care for Advanced Dementia"*, 2004 AAHPM Annual Assembly
- Hansberry, M. Chen, E.Gorbien, M.; *Dementia and Elder Abuse.* Clinics in Geriatric Medicine 21 (2005) 315-332
- Geldmacher, D. *Differential diagnosis of dementia syndromes.* Clinics in Geriatric Medicine 20 (2004) 27-43
- Alva, G. Potkin, S. *Alzheimer disease and other dementias.* Clinics in Geriatric Medicine 19 (2003) 763-776
- Goy, E. Ganzini, L. *End-of-Life care in geriatric psychiatry.* Clinics in Geriatric Medicine 19 (2003) 841-856
- Desai, A. *Use of psychopharmacologic agents in the elderly.* Clinics in Geriatric Medicine 19 (2003) 697-719
- Brown, J. Von Roenn, J. *Symptom management in older adult.* Clinics in Geriatric Medicine 20 (2004) 621-640

…References

- Gray, K. *Managing agitation and difficult behavior in dementia.* Clinics in Geriatric Medicine 20 (2004) 69-82
- Finkel, S. *Behavioral and psychologic symptoms of dementia.* Clinics in Geriatric Medicine 19 (2003) 799-824
- Schneider, L. Dagerman, K. Insel, P. *Risk of Death with Atypical Antipsychotic Drug Treatment for Dementia*. JAMA, October 19, 2005. Vol 294. No. 15. 1934-1943