MANAGEMENT OF PATIENT WITH DEMENTIA

SSA PERSPECTIVE

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OUTLINE

• Background
• Approach to management
• History taking
• Physical education
• Cognitive testing
• Laboratory investigations
• Neuroimaging
• Treatment: Pharmacological/Non-pharmacological
• Issues in management in SSA
BACKGROUND

• Chronic, typically progressive neurologic disorder.

• Adversely affects higher cortical functions including memory, thinking and orientation.

• Most common cause is Alzheimer’s disease.

• Significantly impairs quality of life.

• Associated with disability, mortality, significant psychosocial and economic consequences for individual affected, their families, communities and nations.
Case history

• Mrs. OL, a 75 year old retired primary school teacher is brought to the clinic, accompanied by her daughter, who complains that her previously meticulous mother is increasingly forgetful, missing appointments, misplacing her handbag and money, and less well-kempt than before. She thinks this has been going on for about a year, and recently has difficulty recalling the date and month.

• She seems more withdrawn, and avoids coming out of her room when there are guests in the house. She also started wandering about aimlessly and formed a habit of keeping her unwashed underwear under her pillow. She often insists that she has had a bath, and resists being assisted to bathe in the mornings. There have been a few episodes of bedwetting at night.

• She prefers to wear the same clothes repeatedly despite a drawer full of new clothes bought by her daughter. About a week ago, her daughter relocated her to her home, and since then she appears more confused, often losing her way within the house. Mrs. OL is of the opinion that nothing is wrong and her daughter has brought her to you for a normal checkup.
Questions

- Do you think the daughter is overly concerned and there is nothing wrong as the patient asserts?

- What will your approach be to establishing a diagnosis?

- Who will you focus management on: mother or daughter?
Approach to management

- Thorough history
- Physical examination
- Cognitive testing
- Laboratory investigations
- Neuroimaging
- Patient and caregiver education
- Nonpharmacologic treatment
- Pharmacologic treatment
- Follow-up visits
History taking

• Establish reason(s) for consultation
• Allow patient account and caregiver account

• Explore aspects of cognitive functioning (memory, language use, etc) and effect on activities of daily living

• Ask about behavioural changes – withdrawal, aggressiveness, sexual disinhibition, wandering, etc.

• Enquire concerning mode of onset, duration, progression of symptoms, other neurologic symptoms (including depression), general medical history.

• Specifically ask about: diabetes, hypertension, cigarette smoking, alcohol use, nutrition, family history.
Physical examination

• Be gentle and explain what you want to do to the patient

• General physical examination: look out for anemia, clues to malnutrition, general hygiene

• Neurologic examination: examine for focal lesions (especially cranial nerves and muscle power), asymmetry, deep tendon reflexes, primitive reflexes

• Examine the cardiovascular system: pulse, blood pressure, praecordium
Cognitive testing

- Perform a bedside cognitive test
- MMSE most widely used
- Some local translations available
- Be aware that educational level may affect responses.
- May use alternative tests that are less affected by education/literacy.
- Learn to interpret the findings in conjunction with history and other features (not in isolation)
Cognitive testing ii

• Severity of cognitive impairment using MMSE
  • Normal cognitive function: MMSE 27-30
  • Mild cognitive impairment: MMSE 21–26
  • Moderate cognitive impairment: MMSE 10–20
  • Severe cognitive impairment: MMSE <10

Reference: NICE, UK
Laboratory investigations

- Baseline (to exclude reversible causes of dementia)
- Full blood count (Hb, WBC, differentials, platelets)
- Serum electrolytes, BUN, creatinine
- Blood glucose
- Lipid profile
- Serology (HIV) may be done
- Serum B12 levels (urine MMA) if available
- Liver function tests
- Thyroid function tests
- May be indicated: EEG, Lumbar puncture
Neuroimaging

- To exclude structural cause of dementia
- To explore for other forms of dementia: vascular, normal pressure hydrocephalus
- Brain CT scan
- Brain MRI scan
AD – MRI brain scan

Coronal MRIs. In AD, widened sulci, enlarged ventricles and gaping temporal horns, reflecting cortical and hippocampal atrophy.
Summary: initial evaluation in suspected dementia

**History and physical examination**

- Mini-Mental State Examination (MMSE) (or suitable alternative)

  - If MMSE score is less than 24 (impaired), assess for depression. If positive, treat depression and reassess in 3-6 months.
  - If negative for depression, investigate for reversible dementia (labs, brain imaging).
  - If no reversible clues, AD likely.
  - If reversible cause, treat (or refer for treatment). Still reassess for resolution after 3-6 months.

  - If MMSE score is greater than 24 (not impaired), consider neuropsychologic testing/refer to neurology or psychiatry of geriatrician for further evaluation.

*Modified from Adelman, Daly, AAFP 2005*
Treatment of reversible dementia

- Treat any reversible cause found (e.g. hypothyroidism)
- May be a co-morbidity rather than actual cause of cognitive decline
- Reassess cognitive function after a reasonable period following treatment of potentially reversible cause
- Reassessment after 3 – 6 months reasonable
- If still impaired, consider Alzheimer's or other irreversible dementia
TREATMENT OF ALZHEIMER’S DEMENTIA
Goals of treatment

✓ Maintain / improve quality of life
✓ Improve / maximize functioning
✓ Slow decline in cognition (if feasible)
✓ Treat/control/modify co-morbid mood, behavioural and medical conditions
✓ Ease caregiver burden
Patient and caregiver education

- Key to successful management
- May require separate encounters. Obtain consent from patient where feasible
- Identify responsible family member(s) to communicate diagnosis and care plan

- Empathetically convey prognosis/expected progression
- Emphasize importance of general care, safety, assistance, social support
- Discuss treatment options /expected responses (including cost implications)
APPROACH TO TREATMENT

• Multidisciplinary approach!!!
• Neurologist/Geriatrician/Psychiatrist/Physician with special interest in dementia/geriatrics/neurology
• Nurse/nurse specialists
• Neuropsychologist/clinical psychologist
• Physical therapists
• Occupational therapists
• Social worker
• Others....
Pharmacologic treatment

- Applicable to:
  - treatment of cognitive symptoms
  - treatment of co-morbid mood / behavioural problems
  - treatment of any co-morbid disease (e.g. hypertension or diabetes)
Pharmacologic Tx: cognitive symptoms

- Based on cholinergic hypothesis of memory impairment: cognitive and behavioural changes in AD are due to cholinergic deficits

- Medication may slow decline in functioning; does not restore lost function. May not work in some. NOT A CURE FOR DEMENTIA!

- **Cholinesterase inhibitors:**
  - Useful when impairments affect functioning
  - Indicated for mild to moderate AD. S/E: nausea, diarrhea, dizziness
    - Donepezil 5-10 mg/day
    - Galantamine 4 – 8 mg BD (16-24 mg/d)
    - Rivastigmine 1.5 – 3 mg BD (6-12 mg/d)

- **Antiglutamate:**
  - Indicated for severe dementia. S/E: dizziness, worsen aggression, confusion
  - Memantine: start dose: 5 mg/d, increasing gradually to 10 mg BD
Cholinesterase inhibitors should be considered in mild to moderate AD, although studies suggest a small average degree of benefit.

Vitamin E (1000 IU po BID) should be considered in an attempt to slow progression of AD.

Insufficient evidence to support use of other antioxidants, anti-inflammatories, or other putative disease-modifying agents to treat AD.
Pharmacologic Tx: behavioural symptoms

• **Antipsychotic medication**
  - used when environmental manipulation fails to control agitation, combativeness, or psychosis
  - Atypical antipsychotics (e.g. risperidone) preferred to traditional agents (e.g. haloperidol)

• **Antidepressant medication**
  - to treat depression in patients with dementia
  - SSRI s preferred. Selected MAO-B inhibitors and tricyclic antidepressants may be used.
Non-pharmacologic treatment

- Regular exercise: within reason; tailored; walking; dance
- Regular routine: limit disruptions and changes
- Sleep: regular hours; daytime naps may cause insomnia
- Meals: regular, avoid heavy meals at night
- Dressing, grooming and bathing: supervise, assist, guide
- Toileting: prompted voiding; post-prandial voiding; adult diapers
- Music (esp during meals, bathing), religious activities
- Photo albums, familiar company, happy memories
- Regular brain stimulation: Ludo®, cards, Sudoku®, Scrabble®
- Home/environmental modification: safety, familiarity
Caregivers / Family members

- Patience with repetitive behaviours
- Behaviours are not intentional and may not be amenable to counseling/advice/scolding
- Speak slowly; simple ideas; simple instructions
- Avoid reacting to emotional outbursts and suspicion
- Engage by distraction, change of scene, walks

- Ask for help/support – take a break; get help/support

- **Psychosocial interventions:** (e.g. education, support, respite care) improve caregiver QoL and emotional well-being.
Plan for the future

• Family involvement
• Plan early while patient can still contribute
• Address:
  – living conditions/arrangements
  – finances
  – healthcare
  – decision making? Identification of responsible next of kin
MANAGEMENT ISSUES IN SSA

- Delayed diagnosis, no diagnosis and misdiagnosis
- Access to trained professional care
- Patient education
- Caregiver education
- Caregiver burden: social support
- Access to pharmacologic therapy: out-of-pocket cost
- Support services: daycare, nursing homes, rehabilitation services
- Cultural barriers to care
- Economic barriers to care