Dementia

Proportion of elderly suffer from dementia
Worldwide dementia estimation

<table>
<thead>
<tr>
<th>Year</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>24 million</td>
</tr>
<tr>
<td>2020</td>
<td>43 million</td>
</tr>
<tr>
<td>2040</td>
<td>81 million</td>
</tr>
</tbody>
</table>


Who has dementia?

- Common problem among nursing home residents: 50% to 80% have dementia
- Increasing problem among those in assisted living: 50% to 67%
- Many at home, cared for by family
Dementia: Essential Features

Progressive loss of intellectual abilities . . .

- **MEMORY** impairment
  - Short-term early
  - Long-term later

- **Loss of LANGUAGE**
  - *Loss of ability to express oneself*
  - *Loss of ability to understand what is said*
Dementia: Essential Features

- Loss of PURPOSEFUL MOVEMENT
  - Has the physical ability
  - Can’t perform the task (e.g., getting dressed)
- Loss of ability to accurately interpret SENSORY INFORMATION
  - Cannot understand what is seen, heard, felt
  - Not related to sensory impairment

Dementia: Essential Features

- Impairments in . . .
  - Abstract thinking
  - Ability to reason
  - Judgement
  - Impulse control
- Personality changes
  - Not “him/herself”
Ambulatory: Functional losses

- Willingness and ability to bathe
- Grooming
- Choosing among clothing
- Dressing
- Gait and mobility
- Toileting
- Communication, reading, and writing skills

Behavioural and psychological symptoms of dementia (BPSD)

- Also called Neuropsychiatric symptoms

<table>
<thead>
<tr>
<th>Delusions (妄想)</th>
<th>Apathy/Indifference (麻木)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halucinations (幻觉)</td>
<td>Distrubion (注意力差)</td>
</tr>
<tr>
<td>Apathy/Indifference (麻木)</td>
<td>Distrubion (注意力差)</td>
</tr>
<tr>
<td>Agitation/Aggression (暴躁/暴力)</td>
<td>Irritability/Lability (情绪不稳定)</td>
</tr>
<tr>
<td>Depression/Dysphoria (抑郁)</td>
<td>Aberrant motor behaviour (异常行为)</td>
</tr>
<tr>
<td>Anxiety (焦虑)</td>
<td>Night-time behaviour (晚间行为问题)</td>
</tr>
<tr>
<td>Euphoria/Elation (情绪高涨)</td>
<td>Appetite/ eating changes (胃口转变)</td>
</tr>
</tbody>
</table>

(Cummings et al., 1994)
### Psychological Symptoms

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality change</td>
<td>&gt; 50 %</td>
</tr>
<tr>
<td>Depression</td>
<td>25-50 %</td>
</tr>
<tr>
<td>Hallucination</td>
<td>15-20 %</td>
</tr>
<tr>
<td>Persecutory delusion</td>
<td>30 %</td>
</tr>
<tr>
<td>Misidentification</td>
<td>20 %</td>
</tr>
<tr>
<td>Mania</td>
<td>2 %</td>
</tr>
</tbody>
</table>

### Disturbing Behaviour

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression</td>
<td>20-30 %</td>
</tr>
<tr>
<td>Agitation</td>
<td>&gt; 80 %</td>
</tr>
<tr>
<td>Wandering</td>
<td>25 %</td>
</tr>
<tr>
<td>Sexual disinhibition</td>
<td>10 %</td>
</tr>
<tr>
<td>Incontinence</td>
<td>50-60 %</td>
</tr>
<tr>
<td>Increased intake</td>
<td>5-10 %</td>
</tr>
<tr>
<td>Screaming</td>
<td>5 %</td>
</tr>
</tbody>
</table>
Ambulatory: Behaviors

- Behavioral symptoms more common
  - Irritability
  - Agitation
  - Anxiety
  - Pacing
- Reduced tolerance for stress
- Resistiveness to care

Endstage Dementia

- All abilities lost
  - Mute
  - No longer walks
  - Little purposeful activity
  - Forgets to eat, chew, swallow
- Complications are common
Management

Neurological Investigation

Social Function Assessment

Diagnosis

Blood Tests

Intellectual, Cognitive and Mobility Assessment

Psychological Examination

Diagnosis of Dementia

- Cognitive examination
  - Clinical observation
  - Further cognitive and memory tests by Clinical Psychologist
  - Mini-Mental State Examination
    - Cut-off: 18 (No education) / 20 / 22 (More than 2 years education)
評估員 :___________________
總  分 :___________________

- 情緒低落   四肢不靈活
- 文盲   不願意合作
- 語言使用障礙  理解能力障礙
- 聽覺障礙   視力障礙
- 知覺程度   清醒、欲睡

5 (    ) 請你用一百減七，然後再減七，一路減落去，直至我叫你停為止。 (減五次後便停)   (    )
5 (    ) 你現在所處的地方?
5 (    ) 請告訴我今天的日子 (年份) (季節) (月份) (幾號) (星期幾)?
9 (    ) 這是什麼東西？ (鉛筆) (手錶) (蛋白) (    )
3 (    ) 我頭先叫你記住三樣東西的名字係什麼呀?

呢處有幅圖，請你照住畫啦。(1)

請你寫一句完整的句子。例如：(今日天氣好好)。

請讀出呢張紙上面的字，然後照住去做。(1)

依家檯上面有一張紙。用你的右手拿起張紙，用兩隻手一齊將紙摺成一半，然後放番張紙係檯上面。(3)

請你跟我講句說話 (姨丈買魚腸) (1)

或：依家我讀幾個數目俾你聽，請你倒轉講番出來。  (    )

(蘋果、鎖匙、火車)。依家請你講番三樣東西的名字俾我聽。

請記住佢地，因為五分鐘後，我會叫你再講番俾我聽。

(地方名字)(地方位置)
(九龍/新界/香港)(九龍/新界/香港地區)(醫院/診所/院舍)

拍手拍手 拍手拍手

Diagnosis of Dementia

- Physical and neurological investigations
  - Blood tests
    - Renal function test
    - Liver function test
    - Thyroid function test
    - Complete blood picture
    - Blood glucose
    - Vitamin lever, B12
    - Veneral disease
  - Urine tests

拍手

診斷：

診斷結果：

Diagnosis of Dementia

- E.E.G.
- Brain Scan
- MRI
- PET
- SPECT

Early identification

- Start of the course
- Present clinical management
- Early stage, without symptom
- Dementia
- Brain scan
- Genetic risks
Projected efficacy of early Tx

Why is it necessary to diagnose dementia?

- Facilitate planning
  - Accommodation
  - Wills and advance directive, Guardianship Order
  - Financial arrangement
- Early treatment
- Prevention of accidents and self harm
- Prevention of dangers to self and others
- Facilitate carer planning and reduce carers’ stress.
  - Available supports and resources
- Education. Misunderstanding of playing tricks vs symptoms of disease.
Caregiver burden

- Caregivers spend from 40-100 hours per week with the patient
- 90% affected emotionally (frustrated, drained)
- 75% report feeling depressed; 66% have significant depression
- Half say they do not have time for themselves and that the stress affects family relations
- Many experience a significant loss of income

Treatment of dementia

Environmental manipulation:
- Lighting
- Scheduling of daily routine
- Aromatherapy

Psychological-education:
- Psycho-education to caregivers
- Behavioral management
- Music therapy / sensory stimulation
- Relaxation training
- Cognitive rehabilitation
- Reminiscence groups

Social-environmental

Interpersonal

Dementia

Psychological

Biological

Pharmacological treatment
Pharmacological interventions

- Cholinesterase inhibitors (CEI)
  - Acetylcholine is a chemical in the brain that is important for memory and thinking. The brain cells that make acetylcholine are damaged in people with dementia. Drugs called cholinesterase inhibitors can increase the level of acetylcholine.
    - Donepezil (Aricept), Galantamine (Reminyl), Rivastigmine (Exelon): for people with mild to moderate Alzheimer's disease
  - Memantine
    - For both moderate to severe Alzheimer's disease and vascular dementia
  - Antidepressants for associated depression
  - Antipsychotics for psychotic or behavioural symptoms
  - Ginkgo (銀杏)............... 

(SIGN, 2006)
Managing behavioral symptoms of dementia

- Establish a simple, regular routine that suits the person with dementia.
- Establish a physical environment that suits the person with dementia (safe, comfortable, familiar, interesting).
- Be prepared for change, understand that dementia is due to disorder/disease of the brain and that the affected person has reduced ability to control/think/act.

(Ebersole et al., 2008)

Managing behavioral symptoms of dementia

- Ignore unwanted behaviour or walk away; positive reinforcement of adaptive behaviour.
- Expect inconsistencies – patient can sometimes do things, sometimes not.
- Distract – try to focus attention away from what is upsetting the person with dementia.
- Use empathy and humour to defuse tension.

(Ebersole et al., 2008)
Managing behavioral symptoms of dementia

- Maintain respect, avoid infantilisation, don’t say to the person ‘I just told you that’.
- Slow pace, avoid rush.
- Give repeated explanation and reassurance.
- Use clear, direct, short and simple communication; importance of eye contact, gestures and appropriate touch.
- Break tasks down into small steps.

(Ebersole et al., 2008)

Managing behavioral symptoms of dementia

- Look at activities in terms of the steps required to perform them. The person may be able to do some but not all of these e.g. get dress, if clothes are selected and put out by someone else.
- If resistance encountered with task, try again later.
- Tolerate the behaviour (avoid arguing or scolding).
- Ensure consistency and avoid change wherever possible.

(Ebersole et al., 2008)
Planning an environment

- Using covers over fire exit bars and door knobs to reduce unwanted exiting
- Incorporating outdoor areas with therapeutic design features
- Considering making toilets more visible to potentially reduce incontinence

(Ebersole et al., 2008)

Communication

- correct and compensate sensory deficits
- use all senses to communicate
- clear speech
- one message at a time
- repeat important words and sentences
- encourage the elderly to repeat
- be interested and patient to encourage response from the elderly
- use eye contact and touch to keep the concentration of the elderly
Communication

- Use of communication and explanation are important in dealing with the demented elderly.
- The demented elderly may learn new things.

Conclusion

- Dementia is an important disease.
- Early intervention and treatment helps decelerate the deterioration process.
Referral pathway

- Usual pathway: all district in Hong Kong
  - General practitioner/ GOPD
  - Specialist
  - AED=>Consultation Liaison Service

Community Resource

- ESPP (Elderly Suicide Prevention Program 老人精神科速治服務)
  - http://www.ha.org.hk/espp
  - Available for referral in all NGO or private GP
    - Suicidal thoughts/plan
    - Moderate/severe depression
  - CPNS will assess the case within 7 days after referral
  - If needed, psychiatrist will assess the patient within 2 weeks