Walks with Dementia
-the clinical perspective of physiotherapist

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Dementia
- Dementia of Alzheimer's type, the most commonest form of dementia.
- Research indicates the disease is associated with plagues & tangles in the brain. (Tiraboschi, 2004)
- As a progressive disease, characterized by loss of neuron & synapses in the cerebral cortex & certain subcortical regions. (Wenk, 2003)

Common Presentation

Stage I (Early dementia)
- Memory problems.
- Executive function & perception difficulty.
- Language problems of shrinking vocabulary, decrease word fluency.
- Impaired execution of movement, fine motor & coordination.
- Patient may rebel & refuse to accept the disease, become depressed / irritable or withdrawal into apathy.

Stage II (Moderate dementia)
- Worsen memory problem.
- Speech difficulties due to inability to recall vocabulary, affecting reading & writing skill.
- Progressive apraxia, affecting daily living activities.
- Patients tends to be restless, wandering, sundowning, irritability, outburst of aggression, resistance to caregivers.
- Stress & strain on caregivers.
Stage III (Severe dementia)

- Obvious intellectual impairment.
- Disorientation about time, people & place.
- Speech become unintelligible, eventually complete mutism occurs.
- Reduced mobility, loss of muscle mass, developed generalized muscular rigidity, flexion gradually into fetal position & finally bedridden.

Stages of Alzheimer's disease

<table>
<thead>
<tr>
<th>Duration</th>
<th>Features</th>
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<tbody>
<tr>
<td>Stage I</td>
<td>1-3 years</td>
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<tr>
<td>Stage II</td>
<td>2-10 years</td>
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<td>Stage III</td>
<td>8-12 years</td>
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The Key Principles of Physiotherapy

1. Identifying Patient and Caregivers' Needs
2. Delivering Holistic Management
3. Optimizing Outcome
4. Physical Intervention
5. Psychosocial Intervention

The Needs

- Physical disability under aging process
- Pain disorder
- Mobility inhibition
- Fall incident
- Mood disarrangement
- Behavioral problem
- Caregiver burden
Stage and Patients’ needs

<table>
<thead>
<tr>
<th>Stage</th>
<th>Presentation</th>
<th>Needs</th>
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<tbody>
<tr>
<td>Stage I</td>
<td>Memory dominant</td>
<td>Mobility Promotion</td>
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<td>Mood Enhancement</td>
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<td>Caregiver Support</td>
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<td>Stage II</td>
<td>Memory &amp; cognitive dominant, physical disability progress</td>
<td>Pain Control</td>
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<td></td>
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<td>Mobility Promotion</td>
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<td>Fall Prevention</td>
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<td>Mood Enhancement</td>
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<td>Caregiver Support</td>
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<tr>
<td>Stage III</td>
<td>Physical dominant</td>
<td>Physical Disability Management</td>
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<td>Caregiver Support</td>
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Holistic Approach

- Physical needs
- Psychosocial needs

Physiotherapy Management

1. Pain Control
2. Mobility Promotion
3. Fall Prevention
4. Mood Enhancement
5. Behavior Management
6. Caregiver Support

1. Pain Control

- Pain signals in dementia are under attended.
- Patient has difficulty to present their pain, distorted pain perception.
- Patient might missed diagnosis as “somatic” or attention seeking behaviour.
- Pain and low mood is closely related. Patient suffering from depressed mood often complain of physical pain.

Sharing Points:
- Asking patient to draw picture of body figure or to shade in a body chart.
- Exploring the complex cause of pain, such as neuro-tension, muscle imbalance, or prolonged unfavorable posture, which might be likely to be mistaken as “somatic”.
- Body awareness training with senses stimulation, boost the sense of body control.
- Acupuncture or Aromatic massage as adjunct.
1. Pain Control

Benefits:
- Patient gain personal satisfaction of retaining certain amount of independence, hence delaying dependence on caregiver.
- Mobility meet the need of exercise, providing an outlet of energy; keeping elders active at day time, as to promote sleep pattern at night.
- Exercise habit development can help patient maintain mobility, muscle strength, balance, bone mass, cardio-pulmonary function & even digestion.

2. Mobility Promotion

Potential causes of immobility:
- Physical incapable contributes immobility.
- Pain elicit on movement, inducing fear to move.
- Forget where to move.
- Lack of interest about external environment
- Easily fatigue or motor sluggish induced by medication.

Sharing Points:
- Giving 'positive' instructions & prompting when asking patient to move.
- Avoiding distracting & noisy training environment.
- Use of gestures & cues, e.g. touch cues, visual cues, sound cues.
- Ensure that elder can see the chair throughout the sitting down sequence.
- Making movement enjoyable; e.g. favorite interests & pastimes, music, group dynamic.

3. Fall prevention

Potential risk factors:
- Patient forget that they cannot do a task without help.
- Patient with wandering but poor sense of environment hazard.
- Misjudgment affect their safety & that of others, e.g. frail person may attempt to help another to walk, they both fall.
- Misjudgment about the distance from the chair, results in landing on the floor.
- A strong color contrast on the floor or shinny strip may be 'seen' as a step, patient may lose balance & fall when he takes an necessary step up.
- Medication causing postural hypotension and rigidity.
3. Fall prevention

Sharing Points:
- Recruiting visual-spatial facilitation on top of physical training.
- Ensuring sensory deficits are corrected with eyeglasses or hearing aids.
- Advice to caregiver on clearing of environmental risks, e.g. loose furniture, poor lighting, cluttered surroundings.
- Community visit with home modification as indicated.

4. Mood enhancement

- Patients with early-stage dementia recognize poor prognosis & feel hopeless, tend to withdraw & become apathetic.
- If elders presented severe depressive symptoms, such as suicidal thought, close observation & therapeutic environment to be ensured.
- Exercise enhance mood by making them mindful with their body at work.
- 'Movement with music' program was conducted in PGDH, KH, in 2008; data reported increase in Happiness Score & decrease in Depression Scale.

5. Behavior Management

- Difficult behavior are usually grounded in; the tasks patient faces appear insurmountable, communication breakdown exist or environmental provoking.
- Try to approach in a calm, & explanation of treatment procedures allows elders with a sense of control over his body & personal space.
- Elders may misinterpret routine activities are being invasive & respond aggressively out of self-defense, so get patient psychological ready before treatment.
5. Behavior Management

- When fear & anxiety are the root cause of behavior, try to provide a sense of safety & security to patient, e.g. reducing stimulus in environment, touching, using a low, loving tone of voice.
- Local data reported that aromatic massage with Melissa essential oils reduced the agitation level in intervention group of dementia with BPSD. (Chan K.T, 2006)

6. Caregiver support

- Physical burden in assisting daily functioning of the dementia, especially as the disease progress with more physical dependency of the dementia.
- Problematic behaviour exhaust caregiver.
- Feelings of guilt, frustration, anger, powerlessness & hopelessness.
- Caregiver leaves little time or energy for themselves, e.g. neglect of socialization, poor sleep, etc.

6. Caregiver support

- Utilizing community resource, such as HK Alzheimer’s Association.
- Caregiver support groups.
- Caregiver training, such as prosper manual handling techniques, maneuver of walking aids or wheelchair, assistance in patient’s home exercise, relaxation techniques, healthy life-style establishment, etc.

Conclusion

Identifying Patient and Caregivers’ Needs

Physical Intervention ➔ Psychosocial Intervention

Delivering Holistic Management

Optimizing Outcome
Thank You...

References