Practical Aspects of Managing Patients with Cognitive Impairment

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## Faculty Disclosure

<table>
<thead>
<tr>
<th>No, nothing to disclose</th>
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<tr>
<th>Company Name</th>
<th>Honoraria/Expenses</th>
<th>Consulting/Advisory Board</th>
<th>Funded Research</th>
<th>Royalties/Patent</th>
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Introduction
Introduc%on

“Cognitive Impairment”

Mild Cognitive Impairment

Dementia

Delirium
Cognitive decline

Normal aging

MCI
- Cognitive changes are of concern to individual and/or family
- One or more cognitive domains impaired significantly
- Preserved activities of daily living
- 6 months

Dementia
- Cognitive impairment severe enough to interfere with everyday abilities

Mild
Moderate
Severe
Introduction

Delirium

- Unexpected start
- Disorder of attention
- Alteration of consciousness
- Fluctuating during the day
- Secondary to an organic and/or psychological cause
- MCI, dementia => delirium +++
Introduction

Cognitive Impairment and cancer

- Impact of cancer and cancer treatment on cognitive function (Magnuson 2016, Curr Geriatr Rep)
- Impact +++ in the most vulnerable patients (Ahles 2010, JCO)
- 4% to 7% of older cancer patients have dementia (Raji 2008, Arch inter med)
- 41% to 50% of older cancer patients have CI prior to treatment (Dubruille 2015, psychooncology)
- 8% to 57% of older cancer inpatients declare a delirium (Stewart 2006, ONF)
First step in managing CI is

To detect pre-existing cognitive changes prior to therapy in order to:

- To help in the management of associated symptoms
- To help in a better support and leads to useful intervention
- To predict overall survival and toxicity to therapy
- To help treatment decision-making
How to screen delirium?

**Delirium Symptom Interview**
32 items
20 to 30 minutes (not use every day)

**Delirium Rating Scale (revised-98)**
16 items
No evaluation of consciousness state
Only a psychiatrist or an expert can interpret the result

**Confusion Assessment Method (CAM)**
Easily to use
5 to 10 minutes
Not necessary to be an expert
How to screen MCI and dementia?

**Mini Mental State Examination (MMSE)**
Screening tool for MCI (<27/30) and dementia (<23/30)
6 domains

**Mini-Cog**
Short screening tool (3 minutes)
Similar sensitivity and specificity than MMSE

**Montreal Cognitive Assessment (MoCA)**
Better sensitivity and specificity than MMSE for MCI and dementia
8 domains
How to manage? At the beginning

A comprehensive geriatric assessment

- Evaluation of pain
- Fatigue
- Anxiety/depression
- Malnutrition
- Comorbidities
- Polymedication

Cognitive Impairment
How to manage? At the beginning

A blood simple test

- Anemia
- Infection
- Renal dysfunction
- Liver dysfunction
- Nutritional deficiencies/metabolic disturbance
- Thyroid dysfunction
How to manage? Generally

A good communication is necessary!!!

To manage behaviour troubles and anxiety!

We need to explain and explain again to the patients what is going on!

=> Also for the caregivers and relatives
**How to manage? Generally**

<table>
<thead>
<tr>
<th>What you say</th>
<th>What his brain perceives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are-you cold?</td>
<td>He is cold</td>
</tr>
<tr>
<td>Don’t be afraid</td>
<td>He is afraid</td>
</tr>
<tr>
<td>It will be not long</td>
<td>It will be long</td>
</tr>
<tr>
<td>Don’t worry</td>
<td>He is worried</td>
</tr>
<tr>
<td>It will not hurt</td>
<td>He is in pain</td>
</tr>
<tr>
<td>It’s not difficult</td>
<td>It’s difficult</td>
</tr>
<tr>
<td><strong>And the time is getting longer</strong></td>
<td><strong>And the pending also</strong></td>
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<td>Are-you hot enough?</td>
<td>He is hot</td>
</tr>
<tr>
<td>Be calm</td>
<td>I’m calm</td>
</tr>
<tr>
<td>Be sure</td>
<td>He is sure</td>
</tr>
<tr>
<td>It will least the useful time</td>
<td>It’s useful</td>
</tr>
<tr>
<td>Are-you comfortable enough?</td>
<td>He is comfortable</td>
</tr>
<tr>
<td><strong>Time is slowing down</strong></td>
<td><strong>And the pending is getting shorter</strong></td>
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How to manage?

<table>
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<tr>
<th>Depending on the severity of CI</th>
<th>Delirium/severe dementia</th>
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<td>Safety interventions</td>
<td>Exercises, cognitive interventions, psychoeducation, psychosocial interventions</td>
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<td>Antidepressant, Anti-psychotic, Anti-inflammatory,...</td>
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[25x457]How
to	manage?

Depending on the severity of CI

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[25x457]How
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Non-pharmacological interventions for delirium and severe dementia

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<tr>
<td>Speak with a calm voice</td>
</tr>
<tr>
<td>Be calm, reassuring</td>
</tr>
<tr>
<td>Explain easily all acts</td>
</tr>
<tr>
<td>Clock, calendar, pictures, ...</td>
</tr>
<tr>
<td>Put hearing aids</td>
</tr>
<tr>
<td>Involve the family during care</td>
</tr>
<tr>
<td>Increase socialization</td>
</tr>
<tr>
<td>Take the patient out of his room</td>
</tr>
<tr>
<td>Introduce itself each time</td>
</tr>
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<td>Ensure good hydration</td>
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Pharmacological interventions for delirium and dementia

For delirium:

First line agent => Haloperidol

*Others alternatives:* Olanzapine, Ripseridone, or Quetiapine  
(Lonergan 2007 Cochrane Syst Rev)

For dementia:

Acetylcholine inhibitors such as Donepezil

Other drug: Memantine
Non-pharmacological interventions for MCI

- **Exercise and physical activities**
  - Yoga, meditation, Qigong (Derry 2015, Psychooncology; Oh 2011, Support Care Cancer)
  - Aerobic walking and band resistance training (Knobf 2014, Cancer Nurs; Baumann 2011, Eur J Haematol)
  => Reduce stress and inflammation (Allen 2018, NPJ)

- **Cognitive training**
  - Based on repeated and structured practice of tasks (Von Ah 2012 Breast Cancer Res Treat; Bray 2017, JCO; Damholdt 2016, Psychooncology; Gehring 2009 JCO)
  => promoting neuroplasticity (Allen 2018, NPJ)

- **Psycho-social interventions**
  - Psychological support and psychoeducation (sleep hygiene, ...)
  - Adaptation of life (home nursing, pillbox support, ...)

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Pharmacological interventions for MCI

Methylphenidate and dexmethylphenidate
=> Mixed results
(Butler 2007, Inter J Radiat Oncol; Escalante 2014, Cancer J; Lower 2009, J Pain Sympt manag; Gehring 2012, Neurooncol)

Modafinil and armodafinil
=> Mixed results
(Page 2015, Neurooncol; Kohli 2009, Cancer; Boele 2013, Neurooncol)

Donepezil
=> Mixed results

Memantine
=> Reduced rate of cognitive decline
(Brown 2013, Neurooncol)

Fluoxetine and indomethacin
=> Preserve the proliferating cells in the hippocampus
(Lasio 2017, PhD thesis)
To take home

- CI is a large group of cognitive deficits
- Evaluate others vulnerabilities (CGA)
- Take a full blood simple test
- Use adapted screening tool (such as CAM and MocA)
- Use a good communication
- Involve the relatives (specially the primary caregiver)
- First the non-pharmacological interventions !!!
Acknowledgement