

Delirium in Primary Care Palliative Settings

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On Demand Grand Rounds Concept (MP4/Streaming) accessible at

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Working Together to Improve the Quality of Living and Dying in Canada
Travailler ensemble pour améliorer la qualité de la vie et de la fin de vie au Canada

The following presentation
was first delivered as a briefing
for primary care providers.

It was a plenary session at a
Saskatchewan Hospice Palliative
Care Association (SHPCA) conference.

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session is intended for
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discussion purposes only. Its use is governed by
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It is not intended to direct the
care of individual patients, but rather
to highlight the assessment and
management challenges
associated with Delirium as a
common symptom in end-stage care.

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Session Overview

- Impact of delirium in HPC
- Case – 10 days with Mr. D.
- Diagnosis & management
- Considerations in prevention
- Calgary Health Region, Clinical Practice Guideline for delirium

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- Delirium is common in patients with advanced, life-limiting illness
- > 85% of cancer patients near end-of-life
- 15%-25% of hospitalized cancer patients

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- Results in significant distress
 - Patients
 - Family
 - Health care providers
- Often leads to phenomenon “The Destructive Triangle”

- Burden on health care delivery
- Significant Emergency visits
- Significant hospital admissions
- ↑ resources to support family

- ↓ cognitive function creates barriers for assessment and symptom management
- Preventable in some cases
- Manageable in almost all cases
- Significant under-diagnosing/ under-treatment
- Not well managed/can improve

10 Days with Mr. D.

- 68 years old
- 6 month history - lung cancer
- 1 month history – metastases to 3rd lumbar vertebra
- No other significant problems

10 Days with Mr. D.

- Medications at presentation
 - SR morphine 30mg BID
 - MOS 7.5mg q2h prn BT pain
 - Naproxen 375mg BID
 - Ducosate & senna

10 Days with Mr. D.

- At home with adult family/ apparently managing well
- All parties appeared happy with the care arrangement

Mr. D. – Days 1-4

- Monday-complaint ↑ pain & BT morphine (↑ BT=40mg)
- Tuesday-↑ SR morphine to 45mg BID (BT=80mg)
- Wednesday-↑ SR morphine to 90mg BID (BT=160)

Mr. D. – Days 1-4

Thursday

- ↑ SR morphine to 190mg BID (BT=280)
- Lorazepam 1mg sl prn agitation/restlessness (total 4mg)
- Poor oral intake

Mr. D. – Day 5

Friday

- SR morphine 300mg BID
- Lorazepam (total 4mg sl)
- Generalized pain (10/10)
- BT morphine 60mg po
- Argumentative/verbally abusive/family distressed

Mr. D. – Day 5

Friday – Home Visit

- Pt appears relaxed/somnolent
- Does not appear in pain/when asked “10/10” & “all over”
- Pt declares daughters are conspiring against him/paranoia
- Acknowledges hallucinations when specifically asked

Mr. D. – Day 5

Screening for hallucinations

- Question 1 – Seeing anything unusual in the room?
- Question 2 – Sensation of something touching your skin?
- Question 3 – Convinced someone else in the room/turn and look and they're not there?

Mr. D. – Day 5

Friday – Home Visit

- Oriented – person/place
- MMSE 19/30 (seems anxious)
- Dry mucous membranes/ dehydrated
- Tender around L3 region
- Neuro exam – hyperalgesia & multifocal myoclonus

Mr. D. – Day 5

Friday – Hospital Admission

- Possible treatment suggested hospital care
- Family too stressed to look after Mr. D. at this point
- Presenting with dehydration & opioid toxicity

Mr. D. – Day 5

Friday – upon hospital admission

- Opioid rotation (hydromorphone)
- Subcutaneous hydration
- Lorazepam stopped
- Haloperidol 1mg sc q4h prn (reg) & 5mg sc q4h prn (as needed)

Mr. D. – Day 5

Metabolic work-up

- Normal electrolytes
- ↑ creatinine ↑ BUN
- Normal calcium
- Urinalysis normal

Mr. D. – Days 6 & 7

- Haloperidol 5mg q4h
- Persistent agitated delirium
- Forced to change from haloperidol to methotrimeprazine 5mg sc q4h prn
- Remained confused but more settled on Day 7

Mr. D. – Day 10

- MMSE 28/30
- Much less agitated
- Pain is controlled
- Hydromorphone 2mg po q4h

Mr. D. – Epilogue

- Additional hospital stay of 16 days despite symptom relief
- Wife/daughter needed support to know they could manage at home again
- Experience highly distressing
- Lived 3 more months at home

Take Home Messages

Message #1

Delirium is common in advanced, end-stage illness

Message #2

Delirium will often masquerade as pain

Mr. D. - Insight

Key variation in family caregiving and family dynamics/emotional distress created the conditions which triggered ↑ morphine and fueled the conditions for Mr. D's delirium

Delirium – DSM IV Criteria

1. Disturbance of consciousness with reduced ability to focus, sustain or shift attention
2. A change in cognition or the development of a perpetual disturbance not explained by a pre-existing, established or evolving dementia

Delirium – DSM IV Criteria

Disturbance develops over a short period of time (hours to days)/fluctuates during the course of the day
Evidence disturbance is caused by the direct consequences of a general medical condition

DSM IV Associated Features

- Disturbance in sleep/wake cycle
- Disturbed psychomotor behavior
- Emotional disturbances
(anxiety, fear, depression, irritability, anger, apathy, etc.)
- Labile (unstable) emotions
- Crescendo pain (masquerade)

Clinical Features

- Easily misinterpreted as pain
- ↑ pain scores ↑ analgesic use
- Pain scores/analgesic return to baseline once delirium resolves
- Pain extremely difficult to manage until delirium controlled

Classification

- Hyperactive - hyper-alert/agitated
- Hypoactive – hypo-alert/lethargic
 - Easily mistaken for depression
 - Often under diagnosed
- Mixed – hypoactive/hyperactive

Difficult to diagnose

- Variability of symptoms
- Variability of signs
- Fluctuating course
- Confusion with other psychiatric disorders (e.g., depression, dementia, psychosis)

Assessment

- Early detection is essential
- Frequently missed if clinical judgment used alone
- Screening tools are helpful for early detection/monitoring
- May miss 50% if no tools used

Assessment Tools

- Folstein Mini-Mental State Exam (MMSE)
- Memorial Delirium Assessment Scale (MDAS)
- Delirium Rating Scale (DRS)

MMSE - Advantages

- Validated with cancer patients
- Requires little training
- Quick to administer
- Numerical scale requires quantification of cognitive impairment
- Monitor progress

MMSE - Limitations

- Cognitive impairment only
- No differentiation between dementia and delirium
- Does not characterize perceptual abnormalities/psychomotor agitation
- May miss subtle impairment

Major Causes

- Opioids
- Other drugs (e.g., benzodiazepines)
- Sepsis (infection)
- Metabolic - renal/liver failure/ \uparrow Ca^{+2}
- Electrolytes (\downarrow Na^{+})
- Hypoxemia
- CNS metastases
- Alcohol/drug withdrawal

Non-Pharmacologic Mgmt

- Provide structure & routine
- Quiet well-lit room
- Visible clock & calendar
- Simple explanations
- Continuity of nursing staff
- Familiar objects & people
- Calm, respectful attitude

Family Education

- Detailed explanations of Delirium
- Brain is not functioning normally
- May not be enough O_2 /blood flow
- Medications may have toxic effect
- Infection may be present
- Message – The brain is sick!
- Be specific/link to their experience

Pharmacologic Mgmt

- Correct causes when possible
- Opioid rotation, if indicated
- Hydration, if appropriate
- Regular doses of neuroleptic & breakthrough (start small)
- Benzodiazepines (last resort?)
- Be clear – Delirium management is NOT Palliative Sedation! (intent)

Mrs D.

- 68 years old
- Unresectable carcinoma of pancreas
- Diagnosed 9 months ago
- Gemcitabine stopped 6 weeks ago
- Known metastases to liver
- Celiac plexus block 3 months ago
- Various medications

Mrs D.

- \downarrow mobility, appetite, cognition over the last six weeks
- Currently bedbound/only sips fluids
- Family concerned about confusion
- Seems comfortable; denies pain, nausea, other symptoms

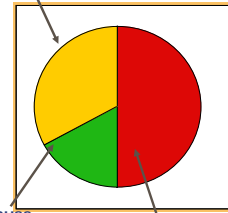
Mrs D.

Physical Assessment

- MMSE 9/24 (could not complete)
- Cachectic, too weak to cooperate
- Large mass upper abdomen
- No localizing neurological signs
- How should Mrs. D be managed?
- She is dying...

Delirium Causes in Cancer

Identifiable Cause Reversible (1/3)



Identifiable Cause Irreversible

No Identifiable Cause (1/2)

Key guiding investigative question

- Did the patient have pain before the delirium?
- If not, why should the patient have pain now?

Differentiation

- Pain – may be able to localize discomfort or give pain history
- Delirium – inability to localize discomfort or give pain history

Differentiation

- Pain – Irritable, restless, unable to sleep due to pain syndrome
- Delirium – Irritable, restless, day/night reversal (features typical of agitated delirium)

Differentiation

- Pain – Facial grimacing, moaning due to pain syndrome
- Delirium – Facial grimacing, moaning

Differentiation

- Pain – Pain localizes to a known pathology
- Delirium – No localized evidence of pain

Differentiation

- Pain – Relieved with analgesics
- Delirium – May worsen with analgesics

Differentiation

- Pain – Unrelieved with neuroleptics
- Delirium – May improve with neuroleptics

Primary Prevention

- Ongoing assessment looking for signs of sepsis, electrolyte imbalance, hypoxemia, etc.
- Opioid-sparing strategies
 - Careful assessment to establish cause of pain
 - Adjunctive medications, palliative radiation, non-drug interventions

Primary Prevention

- Avoid drugs that may adversely affect CNS (benzodiazepines)
- Adequate oxygenation and when appropriate, hydration
- Use of a screening tool (e.g., MMSE) for early detection

Summary

- Delirium is common
- Significant distress for patients, families and health care providers
- Burden on health care system
- Impacts ability to have patient help inform symptom management
- Preventable sometimes
- Underdiagnosed/undertreated

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