Delirium in Primary Care Palliative Settings

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On Demand Grand Rounds Concept (MP4/Streaming) accessible at
http://video.google.ca/videoplay?docid=-3039635356492474313

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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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

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

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

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=160mg)

Mr. D. – Days 1-4

- Thursday
  - ↑ SR morphine to 190mg BID (BT=280mg)
  - 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/↑ Ca²⁺
- Electrolytes (↓ 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 O₂/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.

- ↓ 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...

Key guiding investigative question
- Did the patient have pain before the delirium?
- If not, why should the patient have pain now?

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

Delirium Causes in Cancer
- Identifiable Cause Reversible (1/3)
- Identifiable Cause Irreversible
- No Identifiable Cause (1/2)
Differentiation

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

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

Differentiation

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

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

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